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CONTROL OF AIR POLLUTION FROM NEW MOTOR VEHICLES: PROPOSED TIER 2 MOTOR VEHICLE EMISSIONS STANDARDS AND GASOLINE SULFUR CONTROL REQUIREMENTS	: DOCKET NO. A-97-10 : : : : PUBLIC HEARING

- - -

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MS. OGE: Good morning. I would like you to take your seats, please.

Good morning. On behalf of the Environmental Protection Agency, I would like to thank you for coming here this morning and welcome you to this public hearing. I recognize some of the faces from the meeting yesterday. And I would like to welcome all of you that came yesterday and stayed with us for the whole day and last evening and this morning. We are looking forward to this opportunity to hear the views that you're going to testify today about the proposal that we believe to be very critical for the future of the air quality in the United States.

My name is Margo Oge. I'm the Director of the Office of Mobile Sources with EPA, and I will be serving as the presiding officer for today's hearing.

The proposed regulation that we will be considering today was announced by President Clinton on May 1, 1999, and was published in the "Federal Register" on May 13, 1999. This is a historic proposal. The program will exceed a dramatic reduction in air pollution for the 21st Century, and

we will do it in the most cost-effective and flexible ways.

We estimate emission reductions of almost 2.2 million tons of nitrogen oxide by 2020. This is equivalent in removing 166 million cars from the road.

EPA followed several principles in developing this proposal: The proposal is designed to meet the air quality needs of the states in the nation as a whole, to treat autos and fuels as one system, bring sport utility vehicles, minivans, light-duty trucks to the same emission standard as other passenger vehicles, and be fuel-neutral, that is, meet the same standard regardless of fuel use. We wanted to make certain that this proposal would not constraint consumer choice of vehicles or driving styles either due to the cost or technological factors. And finally, we wanted to provide flexibility for industries in helping to achieve the standards.

At the same time we published the Tier 2 Proposal, we released an advanced notice of proposed rulemaking considering diesel fuel quality. We're not are seeking testimony specifically on the diesel

proposal during today's hearing. However, we have established a separate docket, A-99-06, for comments on this proposal.

Many of you are probably aware of the two recent Court of Appeals decisions regarding EPA air pollution programs. The first decision found that the Clean Air Act is applied in setting new public health air quality standards for ozone in particular is unconstitutional, is an improper delegation of legislative authority to EPA. Despite the constitutional ruling, the Court did not question the science on which EPA relied to develop the health standards or criticized EPA's process for making those decisions. EPA disagrees with the Court's decision, and EPA has recommended to the Department of Justice that they take all necessary judicial steps to overturn the decision.

The second decision states the submittal of state plans under the NOx SIP call, which has been scheduled for this fall. We closely reviewed this decision and have concluded that they do not impact the Tier 2 rulemaking. The Tier 2 proposal remains on solid grounds in terms of air quality need, technological feasibility, cost, and

cost-effectiveness.

Over 70 million people in this country are breathing unhealthy air today, and this trend will continue. Despite the voluntary National Low Emissions Vehicle Program, reformulated gasoline, the NOx SIP call that the agency has put in place, we believe that the Tier 2 standards as proposed are needed to attain and maintain the one-hour air quality standard.

Although there are a number of areas that today meet NOx air quality standards, there are millions of people that live in areas that are very close in non-attainment, in order to attain the one-hour standard. We believe that ultimately these people would tremendous benefit from this proposal.

Also, we believe that this proposal is technologically feasible and is cost-effective. Projected cost of meeting the proposed standards is about $100 for light-duty cars and about $200 for light-duty trucks. The cost for gasoline will be between 1 to 2 cents per gallon.

Even though our cars and trucks run cleaner than ever before, they still contribute a large part to our air pollution. In Philadelphia

where we're holding a hearing today, the second day of the hearings, motor vehicles are contributing almost one-third of all the nitrogen oxide emissions.

Americans love to drive and we're driving more every year. If we do not act today, the emissions from our cars and light-duty trucks combined with the current levels of sulfur in gasoline are threatening to erode the many air quality gains that we have made in recent years.

For the first time, this proposal will address both fuel and engines as a system. We're looking not only to the cars that we drive, but also we're looking to the fuel that they use. Because sulfur poisons the anti-pollution devices in vehicles, we're proposing to cut sulfur content of gasoline by 90 percent.

The proposed rules contains two primary elements: First, EPA proposed more protective emissions standards for all light-duty vehicles and light-duty trucks. The proposed Tier 2 standards will require that all vehicles and trucks weighing up to 8500 pounds to meet the corporate average NOx standard of 0.07 standard grams per mile. This new

standard will result in cars that are 77 percent cleaner and SUVs, minivans, and pickup trucks that are as much as 95 percent cleaner than today's vehicles.

The standards will be phased in from 2004 through 2007 for light-duty vehicles and light-duty trucks up to 6,000 pounds. Light-duty trucks between 6,000 pounds and 8500 pounds would be required to meet the Tier 2 standards in 2008 and 2009. For this class of vehicles, EPA has proposed new interim standards beginning 2004.

The second element of the Tier 2 proposal is a nationwide control of sulfur in gasoline. The Tier 2 standards cannot be met without cleaner fuel. With cleaner fuel, not only the Tier 2 vehicles will benefit, but also the cars we drive today will benefit. Refiners and importers of gasoline would be required beginning in 2004 to meet a 30 parts per million on average, with a banking and trading program that could introduce cleaner fuel in the marketplace as early as 2000 time frame and could extend compliance of these requirements to 2006.

In the proposal, we have put forward a

number of flexibilities for the industries that this rule will affect, and we have included a very significant proposal that will apply to small refiners.

Before getting started with today's testimony, I'll take a few minutes to introduce the Panel and describe how we will conduct this hearing. On my right is Dawn Martin who is the Chief of Staff of the Office of Air and Radiation in Washington, D.C. Next to her is Mr. Glen Passavant, and Glen is a senior person in charge of the Tier 2 standard. On my left is Chet France, and Chet is the Director of the Engines and Compliance Programs in the Oxford Mobile Sources of EPA. And next to Chet France is Mike Horowitz, and he's with the Office of General Counsel; he's the lawyer that's supporting this regulatory proposal.

This is the second day of the hearing, of the two-day hearing in Philadelphia. And we have three additional public hearings, and you're all invited to follow us tonight to Atlanta, and from there to Denver and Cleveland.

We have received an overwhelming number of requests to testify, and we'll do our best to

accommodate everyone. We ask that the witnesses please limit your testimony to no more than 10 minutes.

Today's hearing is going to be conducted in accordance with Section 307-D5 of the Clean Air Act, which requires EPA to provide interested persons with an opportunity to make an oral presentation of data, views, or arguments in addition to opportunities to make written submissions. The comment period and record of this hearing will remain open until August 2nd of 1999 for additional written comments.

The hearing will be conducted informally, and formal rules of evidence will not apply. The presiding officer, however, is authorized to strike from the record statements which are deemed irrelevant or needlessly repetitious and enforce reasonable limits of duration of the statement of any witness.

Joe Guy is going to try enforce some reasonable time frames for your presentations. There's going to be signs "one minute," "no time," so please look at Joe and help us out to move the process forward.

We request that witnesses state their names and affiliations prior to making their statement. When a witness has finished his or her presentation, members of this Panel may ask a person questions concerning issues raised in the testimony.

Witnesses are reminded that any false statement or false response to questions may be a violation of the law.

If there any members of the audience who wish to testify who have not already contacted us, please submit your name to the reception table outside of this room. I also ask that all attendees please sign the register whether or not they are testifying today.

Finally, if you would like a transcript of the proceedings, you should make arrangements directly with the court reporter during one of the breaks. The transcript will be available, however, in the docket within two weeks.

And before we begin the testimony, I would like to know if there are any questions before we proceed?

Thank you.

I would ask for Mr. Ron Williams to

Ron Williams - Gary-Williams Energy Corp.
please stand up and go forward, Mr. Greg Dana, Mr. David Pontious, Mr. Charles Ahlers.

And I will do my best to pronounce your names properly, but I cannot be certain that will happen.

Is Mr. Kevin Scott here?

I would also be bringing individuals that are walking into today's hearing to testify if there's space for them to testify.

Why don't we start with you, Mr. Williams.

MR. WILLIAMS: Thank you. My name is Ron Williams. I'm President and CEO of Gary-Williams Energy Corporation, a Dever-based, privately held oil and gas company. Our primary assets is 50,000 barrels per day refinery within Wynnewood, Oklahoma. Company-wide we have about 275 employees and fall within the definition of a small refinery used for the Tier 2 gasoline sulfur proposed regulations.

In our view, the SBREFA process is very thorough and beneficial. Panel members were knowledgeable, understanding, and willing to propose new approaches in order to keep alive small refiners

Ron Williams - Gary-Williams Energy Corp.
who undoubtedly would have had to shut down if hit with stringent requirements in a very short time frame. In our case, for example, because we distribute product via pipeline to the east, a strictly regional approach would not have provided any relief.

Small refiners do not share the benefits enjoyed by larger companies owning small facilities because of their sheer size, diversification, and integration. The competitive advantages of larger refiners include easy access to both debt and equity capital at a lower cost, significant overhead savings and buying power with multiple refineries, and the ability of one segment of their business to subsidize other segments that may not be quite so profitable.

Lead-time for equipment construction and obtaining capital could be years longer for small refiners because of the competition for engineering and contracting services and the difficulty in obtaining financing for a capital investment of this magnitude. For that reason, the SBREFA process, we feel, was very beneficial and also quite fair.

Two parts of the proposed small refiners

Ron Williams - Gary-Williams Energy Corp.
standards are particular concern to us. First, under the somewhat arbitrary levels proposed for the year 2004, our refinery will have to cut back from 1997-1998 baseline sulfur level of about 275 parts per million to 200 parts per million. Even if we could meet the reduced levels by changing our crude slate, we now estimate that the negative economic impact would substantially offset our normal level of profits. We may, however, be forced to install the same new equipment to meet the 200 parts per million level that we will ultimately need for the 30 parts per million standard. If that turns out to be the case, we would effectively lose the small refiner advantage and would be competing for funding and engineering and construction expertise in order to install expensive current technology.

We feel it is critical that some flexibility be built into the proposed regulatory structure rather than mandating a specific number target such as 200 parts per million. At a minimum, we believe a small company should have the ability to appeal to the EPA for a higher sulfur level if costs outweigh the benefits of hitting a specific target number.

Also, I would like to add that because of the great success, we feel, of the SBREFA process, we do hope that the EPA will initiate a similar process that might be impacted by the proposed diesel regulations in the coming future.

Thank you for the opportunity to address this hearing. We would be happy to provide you with additional information at any time.

MS. OGE: Thank you. Mr. Greg Dana.

MR. DANA: Good morning. My name is Gregory Dana. I'm Vice President, Environmental Affairs for the Association of International Automobile Manufacturers. AIAM is a trade association representing companies which sell passenger cars and light trucks to the United States that are manufactured both here and abroad. We welcome the opportunity to appear before you today to discuss the proposed Tier 2 emissions standards and the control of fuel sulfur levels.

AIAM's members have long been leaders in the application of advanced emission control technologies and are proud of their record of technological achievements in meeting ever-tightening emission standards.

Gregory Dana - AIAM

The standard suggested in this proposal would result in a reduction of 99 percent in the precursors to smog, nitrogen oxides, and volatile organic compounds from uncontrolled levels in motor vehicles. The proposed standards represent an enormous challenge for the industry both in meeting the proposed emission limits and the greater emission control system durability that these rules would require. However, our members are prepared to take on this challenge and do our best to meet these standards.

But a fundamental requirement to achieving these levels will be the removal of sulfur from gasoline. EPA is well aware of the test programs that have been run by the auto and oil looking at lower sulfur levels. The data from these test programs prove beyond a doubt that removing sulfur from gasoline not only enables the auto industry to meet tighter standards, but also cleans up the existing fleet of vehicles on the road. EPA should remember that these test programs probably underestimate the deterioration of the emissions since the method used to load the catalysts with sulfur was unrepresentative based on more recent

testing by Honda.

Given the fact that the Agency has proposed NOx levels equivalent to those adopted by California, it is appropriate that sulfur and volatility requirements between California and EPA be harmonized. AIAM understands that California plans to announce its intention to move from a sulfur control level of 30 ppm to some lower level sometime later this year. We believe EPA should take the same action.

AIAM strongly supports the EPA's proposal on sulfur control as a good first step. Moreover, we urge the Agency to take no steps to relax the levels or time lines established in the proposal, and to establish a schedule for tightening these requirements to enable the introduction of advanced technology vehicles in a manner consistent with market demand. As we have pointed out in the past, NLEV cars will be distributed nationwide in the 2001 model year. These vehicles will show substantial emission benefits, particularly in NOx control, at lower sulfur levels.

To evaluate the claim that gasoline sulfur requirements will be a hardship on the oil

industry, AIAM and the Alliance commissioned an analysis done by MathPro, a recognized refinery modeling consultant. MathPro's findings indicate that even the small refineries in the PADD 4 region of the country should have no problem achieving the 30 ppm standard without economic harm. Given the additional breaks for small refiners called that are called for in the EPA proposal, small refiners should be able to meet these requirements. It also raises the question of the financial impact of this rule on larger refiners and whether they can meet more stringent controls sooner given their greater assets. It is imperative that EPA stay the course on its proposal to reduce fuel sulfur or strengthen these requirements.

In addition to controlling the level of fuel sulfur, the Agency should also take steps to control fuel volatility, that is, the drivability index, as suggested by the industry petition submitted earlier this year. Also, EPA should implement measures to control combustion chamber deposits. Taking these additional steps would essentially harmonize Federal and California fuel, as suggested above. This should be EPA's goal given

the similarity of emission standards between EPA and CARB.

AIAM has several recommendations regarding the structure of the Tier 2 standards. The bin structure and NOx fleet average proposed by EPA will impose limitations on vehicle manufactures. The least stringent bin establishes a 0.20 gram per mile NOx cap. This, in addition to having only bins about the 0.07 NOx average, will limit flexibility and inhibit the further development of current fuel-efficient technologies and the introduction of advanced fuel-efficient technologies.

EPA rules should not have the unintended consequence of restricting use of advanced fuel-efficient technologies in the market. For instance, there are environmental benefits associated with direct injection lean-burn technologies. These technologies offer the best opportunity to reduce fuel consumption and the emissions of greenhouse gases in the near future. EPA could enhance Tier 2 flexibility by expanding the certification bins. This effort would be effective in encouraging the further development and introduction of advanced technology vehicles. In

addition, this action would come at no air quality risk since manufacturers would still be required to meet the same NOx fleet average requirement.

AIAM believes that it is essential for EPA to conduct a technology review prior to finally taking effect to assess whether technology has advanced sufficiently to allow Tier 2 standards to be achieved. EPA's proposal is based on the rapid development and deployment of advanced catalytic converter technology. This forecasted technology may have some unacceptable interactions with sulfur. Manufactures have seen that as precious metals are used more and more efficiently, catalysts become more sensitive to sulfur, even at very low levels. This is no reason to think that this trend will not continue. If for some reason this forecasted technology does not materialize as rapidly as projected, the auto industry may face an intractable problem in trying to meet the proposed standards. Therefore, we believe that it would be prudent for EPA to conduct such a technology review once manufacturers have taken the time to develop produciton-ready designs. EPA should be prepared to take quick action if problems in meeting the

standards do arise.

AIAM supports low sulfur diesel fuel. Reducing sulfur in diesel fuel has several benefits. It will result in an immediate reduction of regulated emissions in existing vehicles, and would substantially reduce the amount of air toxics unregulated pollutants from diesel engines. Low sulfur diesel would also improve catalyst warm-up time and is an enabler for further NOx and particulate control.

Even modest amounts of sulfur in the 20 to 30 ppm range inhibit the lean-burn catalyst technology being developed for compression ignition engines. Near-zero sulfur fuel is necessary to fully realize the environmental potential of diesel engines. AIAM recommends a sulfur specification for diesel fuel of 5 ppm.

There has been much discussion in the media and yesterday at the hearing here of the recent D.C. Court decision overturning EPA's ozone and particulate matter National Ambient Air Quality Standards. We do not believe that this decision is a reason for not proceeding with this rulemaking. EPA should move forward with tighter emission

standards and stringent control of fuel sulfur. Thank you.

MS. OGE: Thank you. Is it Evan Pappas?

MR. PAPPAS: Yes, that's correct.

MS. OGE: And you're here for Mr. Pontious.

MR. PAPPAS: Speaking for David Pontious.

MS. OGE: Welcome. You can start with your testimony.

MR. PAPPAS: My name is Evan Pappas. I'm speaking on behalf of David Pontious from Maryland PIRG.

"Good morning. My name is Dan Pontious. I'm Executive Director of the Maryland Public Interest Research Group or Mary PIRG. Mary PIRG is a non-profit, non-partisan consumer and environmental watchdog organization and one of the network of state PIRGs across the country.

"As the summer ozone season begins in this region, I appreciate the opportunity to testify for you today. I am here to applaud the many assets of Tier 2 gasoline sulfur rule-making and to urge you to strengthen other aspect. While I will

Evan Pappas - Maryland PIRG

outline my general comments on rulemaking, I would like to focus my remarks on why Maryland desperately needs dramatically stricter auto emission standards and cleaner gasoline.

"This past Monday was a Code Red ozone alert day in the Baltimore region. Maryland, partners with the environment, issued an alert urging children to reduce outdoor activity, healthy individuals to limit strenuous outdoor work or exercise, and individuals with respiratory and heart ailments to limit their outdoor activities as well. If this summer matches last summer's pollution levels, we'll have another seriously unhealthy ozone smog season. Last summer, the air in Maryland violated EPA's revised ozone health standard on 1 of every 3 days.

"This pollution is a serious problem for all 5 million Marylanders, but it's especially serious for the approximately 600,000 state residents who suffer from asthma, emphysema, chronic bronchitis, and other lung ailments. Nearly 90,000 children in Maryland suffer from asthma and are especially at risk. In 1996 an American Lung Association study found that between 2100 and 3200

hospital admissions and emergency room visits in Baltimore in one year alone were linked to this ozone smog.

"In Maryland automobiles account for fully one-third of ozone-forming nitrogen oxide emissions. Its led only by electric power plants. In 1997 over 1 million light trucks, such as sport utility vehicles or SUVs were registered in our state. With the Baltimore region in severe non-attainment and the Washington region in severe non-attainment for ozone smog, we will not achieve healthy air unless we take dramatic action to reduce pollution from the significant sources.

"My comments on the proposed rule echo those of National PIRG and clean air advocate Rebecca Stanfield. We believe that the proposed Tier 2 standard and gasoline sulfur standard together compromise (sic) a strong integrated approach to reducing pollution from automobiles. As you know, the revised nitrogen oxide standards will require cars approximately 89 percent cleaner than the Tier 1 standard.

"We agree with EPA that the popular sport utility vehicles must be treated no

differently for pollution purposes than cars. The one million light trucks registered in Maryland are overwhelmingly used for family trips and commuting. The justification for allowing SUVs to pollute more is significantly outdated and new standards should simply reflect the new role SUVs play in our society.

"We also agree that a new minimum nationwide sulfur standard should be adopted to prevent the poisoning of sophisticated new pollution control equipment. The automobile and fuel should be treated as a single system, and EPA has appropriately proposed that new car standards be accompanied by clean gasoline.

"While it is a strong proposal, however, we do believe that EPA proposed gasoline sulfur standards allows too much time to pass before significant air pollution benefits can be expected. We urge you to phase in low sulfur gasoline earlier. Failure to do so would undermine the upcoming advances under the National Low Emission Vehicle Program and Tier 2.

"The EPA's Tier 2 proposal should also be strengthened before it becomes final later this

year. First, EPA proposes allowing SUVs weighing between 6,000 and 8500 pounds an extra two years before the Tier 2 car standards apply, exempting the popular Ford Exhibition, the Dodge Ram, and the Lincoln Navigator. We believe that special standards for larger SUVs should expire immediately. In fact, EPA's proposal does not address pollution from the largest and most-polluting SUVs of all, those over 8500 pounds, such as the Ford Excursion and the Chevy Suburban. By not including these models in the Tier 2 program, auto manufacturers will likely see an unfortunate opening where they can aggressive develop even larger SUVs.

"Finally, EPA's proposal allow the proliferation of diesel vehicles, the pollution from which poses especially severe health threats. We urge the EPA to remove the highest forms, which includes diesel vehicles from the averaging scheme to protect the public from the carcinogenic nature of diesel exhaust.

"Again, thank you very much for the opportunity to comment on the proposed Tier 2 and gasoline sulfur standards. We in Maryland hope that we can look forward to breathing cleaner air as a

result of your actions. Thank you."
MS. OGE: Thank you. For the reporter, that individual who was speaking is Evan Pappas, P-a-p-p-a-s.
Mr. Charles Ahlers.
MR. AHLERS: Thank you. My name is Charles Ahlers. I present this statement on behalf of the American Lung Association in Queens which I serve as a volunteer board member. I'm also a member of the Queens Clean Air Coalition.
We are in full agreement with the statements made at this hearing and yesterday's session by A. Blake Early on behalf the American Lung Association's national office and by Peter Iwanowicz on behalf of the American Lung Association of New York State. To save time, I shall not repeat the data or the reasoning presented in their statements. I want to stress that we endorse the positions taken therein. I wish to explain why we do so and to offer additional grounds for requiring prompt and forceful action on these standards as part of a comprehensive program of achieving cleaner air.
Long before the passage of the Clean Air

Charles Ahlers - American Lung Assoc.

Act of 1970, the medical community recognized the threat posed by air contaminants. And the American Lung Association initiated programs to deal with sharply increased presence of chronic obstructive pulmonary diseases. While a major effort was and continues to be extended to further professional education and education of patients to help them to deal with compromised breathing capacity, it was recognized that an essential part of an intelligent approach to the problem was and is prevention. That means air pollution control and anti-smoking behavior modification. Both measures are still centrally important.

Progress in air pollution control has been very significant in many respects. In much of the nation's most densely populated areas, incineration of solid wastes have be drastically reduced, combustion products control, the sulfur content in fuel use or power generation has been reduced and stack emissions. Most passenger cars exhaust emissions have been reduced so that there is less carbon monoxide, sulfur oxide, and hydrocarbon release per vehicle. And in general, from all sources, there's less large particulate matter,

soot, going into the air and coming into the lungs. Very good. But not good enough that will eliminate the health hazard and not fast enough. It should not have taken 30 years to get where we are. And the advance must be encouraged and supported, technological advances must be encouraged and supported. Enforcement is critical. And additionally, forcefulness and determination are essential.

The position of our association on questions of air pollution is in part a function of our circumstance. Queens County, part of New York City, is an urban suburban part of that city. We have a population of very close to 2 million living in 121 square miles. That's less dense than Manhattan, Bronx, or Brooklyn, and more dense than Staten Island. We are less than well-served by our subway system which has not been significantly expanded in 50 years while our population in those 50 years has increased by a third. We are heavily dependent on cars, and most of us rely on buses to take us to the subways. What is remarkable about this is that is it unremarkable in the context of American population patterns. The bulk of our

Charles Ahlers - American Lung Assoc.

American population is like us, urban and suburban; and like us, dependent on cars, buses, and trucks. The density of the vehicles corresponds to the density of the population, so it is clear that universal federal standards are appropriate for dealing with emissions.

A very regrettable similarity between our situation and the situation around the country is the increased prevalence of asthma in both children and adults with a rise being particularly steep in pediatric asthma and the increased presence of bronchitis and emphysema particularly among the elderly.

A further similarity is that, unsurprisingly, we are witnessing and participating in two consequential national trends: Major increases in vehicle travel and traffic, and major increases in the proportion of high-pollution vehicles on the road. These increases explain the worsening air quality in our City, the times and levels of ozone, particulate matter, oxides of nitrogen and sulfur exceed safe standards. At times of worst air quality, hospital admissions of respiratory patients increase and patients who do

not require hospital admission report increased breathing difficulty.

Though we are well aware of the complexities of ascertaining scientifically the relationship between individual air contaminates and distinct respiratory diseases, and while we understand that responsiveness of the contaminates can vary greatly among individual patients, we cannot ignore the nearly universal reports from patients. Kinds of dirty air mean big trouble for many patients. They deserve protection from such unacceptable defilement of our environment and as promptly fully as possible. Pretty clearly the public agrees with this. We all want clean air and don't want to wait decades for it.

That's why we support the proposed emissions standard, the extension to bigger and heavy vehicles and the proposed reduction of sulfur in fuel. That's why we'd like you to pass the implementation schedule. It should not take 10 years to bring SUVs and light trucks up to standard.

As important as the proposed standards are and as fervently as we favor them, especially if they're strengthened and given earlier

implementation, they do not, of course, by themselves constitute a comprehensive air pollution control program. EPA must continue some of the best and most productive and consequential elements of past programs, encouragement for technical improvement, encouragement of mass transit programs, discouragement of highway subsidies that threaten to undo progress made in other modes of pollution control, and working at least slowly to reverse the pattern of federal subsidy and highway travel and the neglect of rail transport.

Finally, if the proposed standards are not adopted or are adopted in a form that judged by the states who offer less than hoped for benefits, the State should retain the option to adopt California Low Emission Vehicle Program. This variety will be a spur to all concerned and make the Tier 2 standards work effectively.

Thank you for the proposal of the new standards and for the opportunity to comment.

MS. OGE: Thank you.

Mr. Dana, thank you for your testimony. We do agree with the position that your organization has taken. We are committed at all levels,

including the President of the United States, to finalize the proposal by the end of the year.

Yesterday we heard from the American Petroleum Institute, a set of issues that were very different with the positions that you have taken this morning. They have suggested a program that controls sulfur at much higher levels then what you're suggesting this morning, 150 ppm instead of 30 ppm for the rest of the country. Could you please explain to us why your association believes that a low level of sulfur, 30 ppm and maybe using 5 today is needed across the country and why your particular design catalyst to perform with higher levels of sulfur in gasoline.

MR. DANA: As you know, we've run tests on both as the industry alone and the industry proponents looking at the effects of sulfur on automobile technology. And in any single car that was tested in both of those programs, we saw significant reduction emissions when sulfur was taken out of the fuel. And that effect declines after time, it gets lower and lower levels of sulfur. So it's clear to us that as you look at, not only the existing fleet of vehicles out there,

but if you look at future technology we must enforce, so that getting sulfur at a critical level in fuel is absolutely critical. As we look at the catalyst developments we plan to use in the future, we see them being even more insensitive to sulfur. And as we look at the things like NOx to build a catalyst in lean-burn engines in the future, those become another order of magnitude sensitive to sulfur. So it becomes clear to us as we look at the future that every test, piece of testing that we've seen, makes it clear that removing sulfur to extent possible is the best approach.

MS. OGE: Thank you.

Do the panel members have any questions?

Thank you very much. Thank you for the taking the time to share your views with us.

Maybe those who are signed up for later on this afternoon and would like to speak earlier, please see the receptionist and we will try to accommodate you.

Next, Mr. Dwight Wiggins. We have a change; instead of Bob Jorgensen, we have Ms. Tina Vujovich, Ms. Maria Bechis, and Ms. Nancy Lavin.

We will start with you, Mr. Wiggins.

Dwight Wiggins - Tosco Refining Co.

MR. WIGGINS: Thank you much. My name is Dwight Wiggins. I'm the president of Tosco Refining Company. Tosco is an independent refiner and marketer of gasoline and other petroleum products in the United States. Our seven refiners have a combined crude oil capacity of approximately 450,000 barrels a day. Tosco markets gasoline and other petroleum products through a network of approximately 4500 retail outlets primarily under the Union 76 and Circle K brands.

Tosco supports the EPA's proposal sulfur standard of 30 parts per million as we originally announced on May the 3rd. We believe the nation needs to continue to improve air quality, and the current proposal is an important step in reducing ozone levels. Although the newer lower sulfur standards will impose significant additional cost on the refining industry, Tosco is committed to gasoline as a clean fuel in the future. It's clear the reduction of gasoline sulfur will lower emissions in future vehicles.

On the other hand, the current proposal includes relief from the new sulfur standards for small refiners both domestic and foreign. Tosco

Dwight Wiggins - Tosco Refining Co.
generally does not support special provisions which will unnecessarily dilute the air quality benefit of the new standard and create potential competitive inequities.

We believe all refiners, domestic and foreign, should be held to the same standards on the same time table. We, therefore, urge the EPA to adopt the final rule that applies to new sulfur standards consistently to all producers. This will help ensure that the full air quality and health benefits of a cleaner low sulfur fuel are available to all citizens as early as possible and in no sector of the refining industry suffers an unequal competitive burden of compliance.

It's also very important to remember that foreign refiners will have an inherent competitive advantage over domestic refiners in meeting the new sulfur standards. While domestic refiners will have to meet the standards for their entire gasoline pool, foreign refiners will have the option of selecting low sulfur extremes for export to the US market by disposing of high-sulfer extremes in their countries or other markets outside the US. Therefore, foreign refiners may be able to

continue exporting gasoline to the United States without substantial investment or potentially any investment in new desulfurization equipment. It's, therefore, very important that the final gasoline rule not contain a loophole that will allow foreign refiners to import gasoline with sulfur content in excess of the new standard. Such loop holes could undermine the air quality purposes of the regulation and place an even greater competitive disadvantage on domestic refiners. Giving foreign refiners a further competitive advantage could result in increased imports of gasoline, displacement of domestic refining industry, and loss of employment in the industry.

While petroleum refining is not labor intensive, the industry provides well-paid primarily unionized manufacturing jobs that supports thousands of US families.

We're also concerned that foreign refiners of substantial size could take advantage of the proposed special treatment for small refiners. Because petroleum refining is not labor intensive, it's possible that some large foreign refiners could qualify as small merely because they have fewer than

Dwight Wiggins - Tosco Refining Co.

1500 employees. For example, Tosco's largest refinery with a crude oil capacity of approximately 250,000 barrels per day have significantly fewer than 1500 employees. In fact, none of Tosco's seven refineries has more than 1500 employees. And based on Tosco's experience with refinery staffing, a work force of 1500 employees as discussed in the current regulation could operate a refinery with 500,000 barrels per day or more capacity.

If the EPA decides to retain the special compliance time table or small refineries, this potential loophole could be limited by including the fee stocks capacity limits of 75,000 barrels per day as contained in the Small Business Administration size standards. Using the SBA dual capacity and employment test would be consistent with a criteria that's used to qualify small refiners for the procurement preferences used by the Department of Defense in acquiring military fuel. The SBA dual size standard is based on sound reasoning. SBA concluded after hearings and public comment that a dual criteria standard of both capacity and employees was a much better measure of size for petroleum refiners than a single measure alone.

Dwight Wiggins - Tosco Refining Co.

In a regulation of motor fuel under the Clean Air Act there is ample preference for union capacity limits to restrict special compliance provisions for small refiners. In the 1977 lead phase-down provision, Congress expressively imposed a capacity limit of 50,000 barrels per day for the special lead content levels allowed for small refiners. Similar capacity limits have been used in providing small refiners relief from state fuel emissions requirement.

In allowing small refiners an extended compliance period under the California diesel sulfur regulations, the Air Resources Board restricted the extensions to refiners to no more than 50,000 barrels per day in crude oil capacity. A similar capacity limit of 55,000 barrels a day was applied to an extended period allowed for small refiners to comply for California's Phase 2 reformulated gasoline requirement.

If the final sulfur rule provides an extended compliance period for small refiners. The final rule should also require eligible small refiners to demonstrate their commitment to complying low sulfur gasoline at the end of the

extended period. Both federal and state emission regulations have required such demonstrations as prerequisite to special compliance schedules.

In order to use extended compliance schedule an EPA's diesel sulfur program a small refiner was required to demonstrate a commitment to producing complying fuel by the end of the extended period. The required demonstration included capital commitments to the necessary modifications, contracts for design and construction, approved construction permits, and on-site construction to be in progress. Requiring a demonstrated commitment to compliance is necessary to prevent small refiners from simply using the extended period to sell high-sulfur gasoline into a low sulfur market. Without any investment in compliance, a small refiner could merely cease gasoline production at the end of the extended compliance period.

As EPA recognized in implementing its diesel sulfur program, it would enable a small refiner to gain, by their terminology, a windfall in profit by selling lower grade product into a premium market with no long-term air quality benefit to offset the short-term emissions detriment.

Tina Vujovich - Cummins Engine Co.

In conclusion, Tosco recommends that EPA retain the proposed sulfur standard of 30 parts per million for gasoline. However, to avoid the dilution of air quality benefit to the regulation and potential competitive inequities, we urge the EPA to apply the standard equally of all domestic and foreign refiners. If the extended compliance period for small refiners remain, EPA should adopt its capacity limit of 75,000 barrels per day for both and domestic small refiners.

Finally, if extensions are granted, the EPA should make the extension available only to small refiners that demonstrate a commitment to produce complying low sulfur gasoline at the end of the extended period.

That concludes my remarks. Thank you for your consideration.

MS. OGE: Thank you. Ms. Tina Vujovich.

MS. VUJOVICH: Good morning. My name is Tina Vujovich. I'm the Vice President in charge of worldwide marketing for bus and light commercial automotive applications as well the environmental management work for Cummins Engine Company.

Cummins produces diesel and natural gas

fuel, heavy-duty engines for automotive, construction, agricultural, marine, and power generation applications around the world. Cummins is the large producer of commercial heavy-duty engines rated above 150 horsepower in the world.

Cummins has recently developed a new concept engine for application in the light-duty vehicle, the subject of the proposed regulations under consideration today. A portion of the funding for this development is coming from the United States Department of Energy. The Department of Energy's objectives of this effort, as laid out at the initiation of the program, are shown in this figure. There are two major performance goals, a significant improvement in fuel economy, as you can see, 50 percent over gasoline counterpart; and compliance with future emission standards. And the standards given to those who participated in this program at the time are listed in the chart here, as you can see. The figure at the bottom of the chart, the total DOE funding represents the total funding to all those participating in the program. We're not there in Cummins, although I would have loved to have seen that figure given to Cummins.

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These emissions targets represent significant reductions from Tier 1 emissions standards as shown on this figure. The light-duty truck 4, light-duty truck 3, are the standards in effect today as Tier 1 standards. You can see the DOE program goals as the red diamonds on the chart, a significant reduction.

When we entered the program a few years ago, we felt that these standards were very challenging targets and we still feel that these are challenging targets.

As proposed, when including the 50,000 mile intermediate useful life standard, the Tier 2 requirements would preclude engines which meet these objectives from entering the marketplace in 2004 and beyond. We believe that this would foreclose the most cost-effective and most readily available opportunity to improve fuel economy and meaningfully reduce carbon dioxide emissions.

The Department of Energy initiated this program to produce to reduce the fuel consumption of the growing light-duty vehicle segment known as light-duty trucks. Light-duty trucks sales represent an increasing percentage of an

ever-increasing light-duty truck category approaching 50 percent this year.

The next couple of charts that you will see are data from the Energy Institute. In this chart you can see that the transportation energy use represents about one-third of the total energy consumption in the United States. Of the energy consumed by the transportation sector, approximately 50 percent is consumed by the light-duty vehicles, including passenger cars and light-duty trucks as shown on this slide, again by the Energy Institute.

Direct injection, compression ignition, diesel cycle engines have the potential to significantly reduce light-duty vehicle energy consumption. As shown on this slide, the results of our engine compared to the gasoline engines that it would replace in a sport utility vehicle is illustrated here. And as you can see, as we have tested this engine, there is an improvement of 71 percent in fuel economy over the gasoline engine that it will replace.

For a vehicle that drives about 15,000 miles annually, the fuel savings would amount to about 446 gallons per year of fuel. Now, let's

assume that there were about 7.4 million light-duty trucks sold in the United States last year. Had only 50 percent of these been diesel powered rather than gasoline, the fuel savings last year would be over 1.5 billion gallons of fuel.

There is a lot of debate about global warming, but it seems more and more that researchers are becoming convinced that it is a real issue. The magnitude of carbon dioxide emission reductions envisioned in the discussions taking place around the world would require major changes. To reduce the amount of carbon dioxide emitted by light-duty trucks in the United States in the year 2010 to the levels that we were experiencing in 1990 would require a decrease in carbon dioxide between 35 and 40 percent per vehicle, depending on the growth assumptions that one would make. As shown on this slide, the diesel engine that we are in the process of developing achieves a 37 percent reduction from the carbon dioxide emission levels of the gasoline engine that it would replace.

Earlier I showed you the Department of Energy program goals, including the emissions targets. The proposed Tier 2 standards are much

more stringent, as shown on this figure. It is true that the Department of Energy and the manufacturers participating in this program recognize that EPA would be coming out with Tier 2 proposals and also recognized that program goals would change as a results of those proposals.

As you can see from this chart, again, the current Tier 1 standard. The Department of Energy target, again, is represented by the red diamond. And you can barely see, written very tiny, the standards that have been proposed in the Tier 2 proposal.

Improvements in the engine-out emissions from today's best light-duty diesel engines, which employ cooled exhaust gas recirculation, wastegated turbochargers, and air-to-air aftercooler, can be made. And Cummins believes that with the increased amounts of EGR, the use of fuels systems capable of higher injection pressures and cylinder heads with four valves per cylinder, that engine-out oxides of nitrogen particulate matter emissions for light-duty trucks can be cut in half.

Reductions beyond these levels will require significant exhaust aftertreatment. Lean

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Tina Vujovich - Cummins Engine Co.

NOx aftertreatment is still in the development stage. However, Cummins believes that such systems capable of at least 50 percent reductions of oxides of nitrogen will be commercially viable in the time frame when the Tier 2 standards are proposed to begin a phase-in.

Particulate aftertreatment systems, such as catalyzed soot filters, will also be required. Regeneration, the process of removal the particles from the filters, is still the biggest hurdle for such systems, especially during sustained light load conditions and cold ambient temperatures. Cummins is hopeful that filters with 80 percent or greater trapping efficiency will be able to regenerate continuously under all operating conditions. The sulfur content of diesel fuel, therefore, must be reduced significantly in order to enable the use of these aftertreatment systems.

The anticipated reductions from current best technology through improvements in engine design and through the use of aftertreatment systems, as just described, and as they are applied to light-duty trucks still fall short of the reductions necessary to comply with Bin 7 standards,

the least stringent of the Tier 2 bins.

Cummins believes that fuel economy and carbon dioxide emissions benefits compression-ignition, diesel-cycle engines bring, warrant their inclusion in the light-duty market. Given the long-term horizon and major advances required to develop conforming commercially viable diesel product, Cummins recommends that a mid-term technology review be included to assess the progress by these highly fuel efficient engines toward Tier 2 compliance.

We're pleased to see the Agency's advanced notice of proposed rulemaking requesting comment on the need to changes in diesel fuel. Cummins will provide separate comments to this advanced notice, but inasmuch as fuel changes have a large impact on feasibility of the technology to meet the standards proposed in this rulemaking, it is important to state here that both highly efficient oxides of nitrogen and particulate aftertreatment systems will require the use ultra low sulfur fuel, that is, fuel with less than 5 parts per million sulfur.

In addition, Cummins believes that

flexibility provided by an averaging program that allows the setting of family emission limits is needed. The large gaps between the 5 interim bins and the seven Tier 2 bins really discourage emission reductions that are significant but may fall short of the next lower bin. Manufacturers would still have to comply with the same stringent oxide of nitrogen fleet average, so such an averaging system, while providing greater compliance flexibility and the reduction of the cost of compliance, would really not negatively impact the environmental improvements sought by the proposal.

In conclusion, Cummins recommends: One, that the proposed bin structure be replaced by an averaging program that allows manufacturers to set family emission limits.

Number two, that a mid-term technology review be included to assess the progress by these highly fuel efficient engines toward the Tier 2 compliance and revise, if necessary, those provisions.

And finally, that the maximum sulfur content of the fuel stream for the light-duty vehicles be capped at 5 parts per million.

Tina Vujovich - Cummins Engine Co.
I appreciate the opportunity to speak on this proposed rulemaking and would address any questions that you might have. Thank you for your attention.
MS. OGE: Thank you. Any questions?
MR. PASSAVANT: May I ask?
MS. OGE: Yes.
MR. PASSAVANT: I would like to ask Tina, if she would, when you provide your written comments here, I heard you ask for an FEL approach. If you would please do two things for us. Number one, if you would take a look at what we said in the preamble about the pros and cons of that which is the approach we used. And second, since you've suggested that more bins would be helpful if we stuck with the bins approach, if you could get to us sometime what bins you're thinking about.
MS. VUJOVICH: Just a clarification, Mr. Passavant. What we've suggested is an FEL approach as opposed to a bin approach.
MR. PASSAVANT: I understand. But if we were to stick with the bin approach, if you could suggest to us which bins you would like to see.
MS. VUJOVICH: Okay. I will do that in

our written comments.
MR. PASSAVANT: Thank you.
I'd like to ask Mr. Wiggins, do you have with you a written copy of your testimony to make available?
MR. WIGGINS: I believe we did. You asking for a written copy?
MR. PASSAVANT: I guess that takes care of that. Thank you very much.
MS. OGE: Any other questions? Thank you very much, both of you.
MS. OGE: Before we go to the next panel, I would like to ask for Ms. Gina Amador to step up if she's here. Mr. Karl Walter, Ms. Stephanie Mayers, Jillian Gill, Mrs. Jessica Brooks, and Mr. Jeff Eber.
If you could take the time to print your names, and if with you're any association, please also print the name of the association and then we can start with your remarks.
MS. AMADOR: My name is Gina Amador. I'm very excited to be here because I am among a group of people that carry many perspectives on a very complexion issue of air pollution and I see a

lot of potential here for coming to grasp on the complexities of this problem and I want to share with you some of my personal experience with the air pollution problem.

I came two years ago from Mexico City to study here for college. In Mexico City I have seen the tremendous effects that an air pollution crisis can have on people's daily lives. On every street corner I have seen people literally struggling taking a breath, on every street corner. And every day I see people that are in a bad mood with headaches. I myself have experienced that because it's just very difficult to cope especially if somebody doesn't have a proper nutrition or balance every day can be very difficulty with levels of pollution as high as we do experience in Mexico City.

I have also tried to see what people are doing in Mexico City about the air pollution, and I see that people are improvising, that there is no sustainable plan for attacking this problem, but there's crisis of air pollution and the public sometimes doesn't even know what they're being exposed to. There's a great information gap. Even

though we do have technology to monitor this air pollution, it's very hard to know and to explain to the public what it is that they are experiencing. And there's very little technological studies. Even though I am very hopeful that we will find a solution, I see the effects of not preventing air pollution. I see the effects of waiting until it's almost too late to take action.

Here in the United States I think that there is a lot of potential to prevent what is happening in Mexico. And I see a lot of people that care about air pollution. Every day I go out and canvass with Penn PIRG and I talk about 40 people and people care about the air pollution. Every day I've met somebody with asthma, somebody that has a very serious relation to air pollution problems here. And so I'm very convinced that this is a pressing problem and that there is a potential in this room to come to grips with the problem and start to unravel the complexities of this phenomenon.

I just was here yesterday for a couple of hours, and excuse me for my over-simplification of the problem, but I saw the auto and oil industry

saying, "Time is money, we want more time; we need wait 10 years, a decade; the problem is not serious enough." And then on the other hand I have seen environmental groups and public health groups saying, "Time is life and we need to act now."

And I think we have to prioritize the life aspect of time. And I really think that this is a great opportunity. I really thank everybody that is here for listening to each other's perspectives. I happen believe in Surgi (ph) which is like if you give, you gain. And I think that in this tug-of-war, if both parties give, they will both gain and we will all gain. And I think there is a lot of hope for cutting-edge technologies that give us sustainable and integrative plan for changing the face of our plant. Thank you.

MS. OGE: Thank you very much. Mr. Walter.

MR. WALTER: My name is Karl Walter. I'm a resident of North Huntington, Pennsylvania, which is a suburb and Pittsburgh. I'd like to share a little story. As you know, asthma rates among children are up 75 percent since 1980. One of the children lucky enough to be born within that time is

my little sister Nancy. She was born in Pittsburgh which has the eighth worst air pollution in the nation. And she began having trouble breathing around her 14th birthday. Naturally, my family and I, we were little scared because my little, all of a sudden her face starts turning purple and we don't know what to do. We start taking her to the hospital, and the doctors, nobody knows what to do. Finally, we figure out she has asthma, my little sister.

She's lived with this health problem five years, my younger sister. There's days when she can't go out and jog because the air pollution is so bad. One out of three days is an ozone action today. Sunday, Monday, and Tuesday in Pittsburgh were ozone action days. She could not go outside and ride a bike because she couldn't breathe on these days.

Automobiles are responsible for about 30 percent of the smog-forming nitrogen oxide pollution and 20 percent of volatile organic compounds which contribute to the formation of smog. And what we would like see in the Penn PIRG is heavy regulations on these automobiles because they are a major

contributor to the air pollution that has affected my family and my little sister so dearly.

Basically, we would like to see the loophole for the SUVs closed. For ten years the biggest of those, Ford Excursions, things like this are able to continue polluting our air. Ford Excursion is actually not even required to clean up in 10 years. These are excluded with the proposal right now.

We applaud the proposal that the EPA has put forth, but we would like to see them enforce more strictly to help children and older elderly people who have been affected so dearly by this horrible air pollution. Thank you for your time. Thanks for listening.

MS. OGE: Thank you. Ms. Brooks.

MS. BROOKS: Hello. My name is Jessica Brooks, and I also work for Penn PIRG, although I'm not really here today to talk about my job with Penn PIRG. I'd like to talk about my job last summer. I actually was camp counselor dealing with children who would spend a week at the camp. And at the camp we would spend a lot of time doing outdoor activities and playing outside and having soccer

games and swimming. And a lot these children, it's very sad to see, had to stop themselves when they would go to play their games. They were not able to play anymore at their camp.

And I can remember being a child when I was going to camp, and that was one of the best things of my summer. And the smog and air pollution is taking that away from children these days.

When I was a child at camp, you didn't understand -- these weren't things that you thought about. But now all of the children understand the problem, the ones that have asthma and the ones that don't. They all know about it; it's so common that all of the children are understanding, oh, little Tommy can't play now because he has to stop, he can't breathe. Have you ever looked in a child's eyes when they can't breathe, the fright and the sadness, the embarrassment of not being able to keep up with the other kids?

This is a problem that needs to have a solution. I understand that asthma may not be specifically caused by air pollution, but it is problematic because of air pollution. Their attacks are triggered by this and they can't breathe. So we

need to come out and we need to make sure that this pollution is cleaned up. We need to have as strong and as tough standards as possible.

There should not be exemptions for the heavier vehicles. These are the most pollutant. These children need to have cars out there that are less pollutant, they need standards on all of the cars, and they need them as soon as possible so when they have children they don't have to deal with the same thing.

So we would like to come out and thank you for your support of the clean standards and of the clean air proposal, but we also would like to say that they do need to be stronger. And I'd just like to thank you.

MS. OGE: Thank you, Ms. Brooks. Mr. Jeff Eber.

MR. EBER: My name is Jeff Eber. And I am with the many canvassers for Penn PIRG. I speak to many people every day. I've actually found that of the people that I talk to, probably one more than half are in support of our group.

Right now I'd just like to relate a personal story, that of my sister who actually

didn't develop symptoms of asthma until she was 14 or 15. Although when she went to the doctor, the doctor didn't specifically say, "You have asthma now because of the air pollution right now," but I think that a problem that's being ignored is that when children are developing at a younger age, they actually need more oxygen for their growing bodies in proportion to their bodies than the average adult. In cities, especially Philadelphia where smog is a big problem, they can't get the vital air that they need; they're taking in too much pollution. And although they don't see the effects right at that very moment, it's an ongoing process that develops over time.

My sister entered high school and she started to become very active in sports which she hadn't been before. That is when she noticed the problem. She developed asthma in high school. And she was really into volleyball, ice skating, and playing sports, and now she can't due to the fact that she's developed asthma at such an older age. And I think is a big problem.

The auto industry, from quotes that I've read, like to downplay it saying that although

pollution does harm children a little bit, it's not that much. They say that it only hurts the lungs and hurts the respiratory system a little bit. The problem is, is that it might be do that at that point, but it's a developing thing that develops over time. So the longer that we wait to stop the polluting, it will just keep getting worse. We need to realize that children now don't see the problems with the air pollution right now, but they will in the future and as the problem gets worse. It will continue to get worse.

MS. OGE: Any members have any questions for them?

I'd like to thank you for taking the time to be with us this morning. Your views are very important to the work that we are doing here. Thank you very much.

I would ask for Mr. Pat Charbonneau to please come forward. We will try to make some changes this morning to accommodate people that are signed up to speak with us today. We suggest that we move forward with the panel that is scheduled to speak at 1:15.

So Mr. Charbonneau, Mr. Kata, Leonard

Kata, is he here? Mr. Robert Strassburger, and Mr. Jason Rash.

Also there were two additional individuals that were scheduled to testify at 10 o'clock, and they were not here this morning. I'd like to see if they are here. Ms. Maria Bechis and Ms. Nancy Lavin.

(Pause.)

MS. OGE: Good morning. We can start with Mr. Charbonneau.

MR. CHARBONNEAU: My name is Patrick Charbonneau. I'm Vice President of Engine Engineering for Navistar. I'm here today to discuss the impact of the proposed Tier 2 emission standards on diesel engine technology which Navistar is developing for light-duty vehicle applications in partnership for our customer, Ford Motor Company.

We believe that greater reliance on diesel engines in this important market segment can provide important environmental and economic benefits. We support challenging but achievable Tier 2 standards which create incentives for our industry to invest in new generation diesel engines which deliver superior emissions control

performance. Clean diesel fuel with sulfur levels at or below 5 parts per million is a critical enabler for the new technologies we are developing. We need EPA's help in assuring the availability of ultra low sulfur fuel for light-duty diesel by 2004 in order to achieve the very aggressive Tier 2 targets the EPA has proposed.

With ultra-clean diesel fuel and new aftertreatment systems, we foresee dramatic breakthroughs in emissions control. For example, Navistar recently conducted a demonstration of passive trap technology using a school bus with a heavy-duty diesel engine and ultra low sulfur fuel. We're pleased to report that we achieved reductions in particulate emissions were over 90 percent, which will be required to achieve the stringent Tier 2 limits for particulates. The success of this demonstration is an exciting example of how great strides forward we can take with the combination of new generation diesel technology and ultra low sulfur fuel for both light-duty and heavy-duty diesels.

I would like to make two other points: One, the particulates are 50 percent lower than the

best 1998 certified compressed natural gas engine.

And secondly, the hydrocarbon emissions are lower than can be measured in certified test cells.

For those of you who have seen our school bus in the front of the building, you can attest that there is no smoke and there is no diesel odor associated with this vehicle.

Navistar is a major North American manufacturer of medium and heavy trucks and buses marketed under the International name. Navistar is also the world's largest manufacturer of mid-range diesel engines. We supply these engines both to other Navistar divisions as well as to Ford.

Although we've made major strides in emissions performance, Navistar expects to achieve dramatic additional improvements by continuing to invest in advanced emissions control systems. As these new technologies come to fruition, light-duty diesels should be able to meet extremely stringent emission reduction goals. Thus, provided we have realistic phase-in dates and assuming we have clean diesel fuel available, Navistar believes light-duty diesel has the potential of meeting EPA's

challenging Tier 2 targets.

As we approach Model Year 2004, reductions in engine-out emissions of NOx and particulates will be obtained through the introduction of completely technologically advanced engines.

After these advanced engine technologies are implemented, further reductions in NOx and particulates in the 2004 time frame will require new aftertreatment technology. Several options are under consideration including advanced oxidation catalyst and passive particulate traps to production particulates and de-NOx catalyst and NOx absorbers to reduce NOx. Evaluating and then selecting the best technologies will require major R & D effort by Navistar and vendors of aftertreatment devices. Once he have identified viable aftertreatment methods, additional time and investment will be needed to mature these technologies to the point where they perform efficiently under on-road conditions. Although the aftertreatment option we are considering are currently developing technologies, our goal is to make these technologies available in Model Year 2004 through 2007. This

assumes the availability of ultra low sulfur fuels so that the effectiveness of the aftertreatment is not compromised by sulfur contamination.

While this rulemaking does not address vehicles in the over-8500 pound class, the technological breakthroughs spurred by light-duty emission standards could eventually be transferred to the heavy-duty engine line. Navistar has a long history of leveraging common technologies across product lines from pickup trucks to Class 8 trucks. For example, Navistar's HEUI fuel system was originally developed for light heavy-duty engines in order to meet the emissions control, fuel economy, and sociability requirements for this market. Navistar then applied this technology to its larger engines. In a similar manner, we would expect these base engine improvements and aftertreatment technologies developed to meet Tier 2 light-duty market would ultimately be transferred to the heavy-duty diesel engines. This leveraging of emissions control breakthroughs could have substantial environmental benefits by creating the technological foundation for lower emitting heavy-duty diesels. With an expanding presence in

the light-duty market as Tier 2 standards take effect, Navistar could justify sizable R & D investment required to support these new emissions control technologies. These will be applicable to all of our engine classes.

With tighter controls on nitrogen oxide emissions and particulate matter, Navistar's new generation of light-duty engines will provide an unsurpassed combination of environmental benefits. In comparison with gasoline engines, diesel offers greatly increased fuel economy, substantially reduced carbon dioxide emissions and greater engine durability and significantly lower emissions of hydrocarbons and carbon monoxide.

These a benefits have been recognized not just by industry, but by government policymakers. The Administration's partnership for a new generation of vehicles has selected compression ignition engines as the leading technology candidate for achieving greatly increased fuel economy without burdening consumers with added cost or reduced convenience. This increase in fuel efficiency will translate into reduced greenhouse gas emissions as well as producing additional

benefits like lower carbon monoxide and hydrocarbon emissions.

Based on these emissions benefits, countries in the European Union are encouraging rapid dieselization of the light-duty fleet in order to achieve the EU's goal of 25 percent reduction in mobile source CO2 emissions by 2008. If the United States were to adopt policies which discourage conversion of light-duty vehicles to diesel technology, our near-term ability to address global warming could be seriously compromised. Despite the long-time promise of fuel cells and other cutting-edge innovations, most knowledgeable experts agree that their commercialization will not be feasible for many years and that diesel is the only high-efficiency engine technology that is economically viable for widespread use in the near future.

There is one caveat for our ability to make dramatic strides in reducing NOx and particulate emissions. We must have assurance that ultra-clean diesel fuel, with sulfur levels at or below 5 parts per million, is available for light-duty vehicles by 2004. All of our R & D work

on rests on the premise that low sulfur fuel is a critical technology enabler, without which we cannot achieve the levels of NOx and PM control called for by the Tier 2 proposal. Based on our discussion with our suppliers and our review of data, we're convinced that effective aftertreatment will depend on reduction of fuel sulfur levels to 5 parts per million or below. Higher sulfur levels in diesel fuel will interfere with aftertreatment by causing catalyst poisoning and the generation of sulfate particulates within the aftertreatment systems.

As we will explain in our comments on EPA's advance notice of proposed rulemaking on diesel fuels, we favor the phased approach EPA is developing for introduction of low low-sulfur diesel fuel. Under this approach, the EPA's initial priority would be to making slow-sulfur fuel available at the 5 parts per million level by 2004 for light-duty trucks.

While there are implementation issues that would need to be resolved under this approach, it would efficiently meet the needs of the small and targeted light-duty diesel market covered by Tier 2 requirements while permitting the industry to gain

experience on aftertreatment technology and develop refining infrastructure necessary to support the broader desulfurization requirements.

Again, I want to stress our ability to meet Tier 2 emissions targets is conditioned on the timely availability of clean fuel. If the EPA has not mandated low sulfur diesel fuel when it finalizes the Tier 2 rule, that rule would need to provide alternate NOx and PM limits for diesel engines that could be feasible using current grades of diesel fuel.

There is one aspect of the proposed rule which is of great concern to our industry. We see no reason why the EPA should establish a more stringent 50,000 mile standard for diesel vehicles given their durability and consistency of their emission profile over time. The 50K standards in EPA's proposal is simply infeasible for diesel engines and should either be eliminated or adjusted so they are identical to the 120,000 mile standards.

Because of the aggressive targets we will face under Tier 2, we strongly agree with the EPA that a technology review in 2004 should be conducted to assess the feasibility of its HDLT NOx

Leonard Kata - Volkswagen

and particulate limits in Model Year 2007 and beyond. This review would provide the necessary opportunity to evaluate the maturation of the aftertreatment technologies as well as the effectiveness of cleaner fuel in controlling NOx and PM.

In summary, ultra low fuel sulfur is mandatory for Tier 2 compliance. Technologies that are developed for light-duty diesels are transferable to heavy-duty diesels. The Tier 2 rule will not be feasible without the elimination of the intermediate 50,000 mile standards, and a technology review will be essential to assess the feasibility of the post 2006 standards.

And lastly, we can demonstrate several of these points at our demonstration school bus parked outside if anyone would like to see it.

Thank you. I hope Navistar's comments will be helpful to the EPA. And I would be happy to answer any questions.

MS. OGE: Thank you. Mr. Leonard Kata.

MR. KATA: Good morning. My name is Leonard Kata. I'm the team leader for the Emission Regulations and Certification Group at Volkswagen of

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America. My comments today are presented on behalf of Volkswagen AG, Audi AG, Rolls-Royce, and LAMBORGHINI.

Volkswagen is a member of the Alliance of Automobile Manufacturers and the Association of International Automobile Manufacturers. As such, we support the testimony presented by these associations. In my testimony before you, I intend to limit my comments to a few key issues which merit re-emphasizing and are also of critical importance to Volkswagen. More detailed written comments will be prepared and submitted for the record before the close of the comment period.

First, vehicle emissions and fuel specifications must be regulated as a package. The Tier 2 requirements will necessitate the control of exhaust emissions to extremely low levels. Without the availability of low sulfur fuel, the emission reduction benefits of the emissions control systems necessary to meet the Tier 2 standards will not be realized. Further, near-zero sulfur fuel is essential to enabling new emission control technology.

In this rulemaking process, EPA has

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separated the gasoline and diesel fuel specifications issues. I would like to emphasize that both issues are equally important and merit your consideration, especially considering that the proposed emission standards are fuel-neutral. Just as low sulfur gasoline is essential for compliance with the Tier 2 emission requirements, clean diesel fuel is equally essential. While it would result in an immediate reduction in the emissions of current diesel vehicles, low sulfur clean diesel fuel is an enabler for further NOx and particulate control.

Lean burn catalyst technology being developed for compression ignition engines can be inhibited by even modest amounts of sulfur. Therefore, to fully realize the emission control potential to produce clean diesel engines, near-zero or 5 ppm sulfur diesel fuel is required. Volkswagen has some experience with very low sulfur fuels, less than 10 ppm, such as the fuel marketed in Sweden and England, and the emission reduction results are significant. These results were reported in an SAE paper presented earlier this year.

The Tier 2 emissions standards should not preclude the availability of particular engine

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technologies. As proposed by EPA, the bin structure and stringent NOx fleet average will impose limitations on vehicle manufacturers. The least stringent bin establishes a 0.2 grams per mile NOx cap, Bin 7. Further, there are only 2 bins above the 0.07 NOx average. These requirements will limit the flexibility, inhibit the further development of current fuel-efficient technologies and inhibit the introduction of advanced fuel-efficient technologies. Additional bins, above Bin 7, are required to address the needs of heavier vehicles with large displacement engines and vehicle powered by lean-burn efficient engines. While limited flexibility may be available during the Tier 2 phase-in period, additional Tier 2 bins that continue beyond the phase-in period are needed to encourage the ongoing development of current and advanced lean-burn technology.

There are environmental benefits associated with direct injection lean-burn technologies. These technologies offer the best opportunity to reduce fuel consumption in the near future. In the case of diesel direct injection, the advantages also include inherently low NMOG, CO,

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cold-start, evaporative, and refueling emissions. However, these lean-burn technologies present difficult emission control challenges. Today's emissions control technology cannot achieve the level of NOx control needed to meet the very tight standards in these applications.

As presented in the Alliance of Automobile Manufacturers' proposal, EPA could enhance Tier 2 flexibility by expanding the certification bins, without incurring any loss of Tier 2 stringency. This effort would be effective in encouraging the further development and introduction of advanced technology vehicles. Finally, the action would come at no air quality risk since manufacturers would still be required to meet a NOx fleet average requirement.

In summary, the EPA rules should not have the unintended consequence of restricting vehicle design or precluding the use of vehicle technologies in the market, particularly advanced fuel-efficient technologies. Volkswagen recommends that EPA should include certification bins that allow individual vehicles to meet NOx levels of up to 0.6 gram per mile, at least through 2007 model

year and 0.4 grams per mile thereafter.
In conclusion, Volkswagen encourages the Agency to continue to pursue the control of sulfur in fuel, both gasoline and diesel, as an integral part of the Tier 2 rulemaking process.
In addition, Volkswagen recommends that the EPA Tier 2 rule provide the needed flexibility to ensure the continued development of vehicle designs and emissions control technology. This flexibility would come in the form of vehicle emissions standards, fleet average compliance requirements, and a phase-in time line that does not inhibit the continued availability or further development of advanced technology.
This concludes my prepared remarks.
MS. OGE: Thank you. Ms. Nancy Lavin. Good morning.
MS. LAVIN: Good morning. Thank you for your invitation to hear me. I am the Chair of Philly Walks in Philadelphia, the only Philadelphia organization who devoted solely to pedestrian advocacy. We are affiliated with the Philadelphia Clean Air Council. I have asthma, and I suppose you can hear it in my voice and I hope you can hear me.

If not, let me know. It developed after I moved to the city.

Now, we know that walking distances is a healthy and desired activity, but not where the air is unhealthy. I can no longer walk long distances.

Just one example, school and tour buses and delivery trucks wait curbside for extended periods of time outside our cultural and entertainment institutions with their motors running. What we need is help from you. We need your assessments, your recommendations, because we need regulations in place in order for enforcement to occur against this activity.

During trips to quiet suburban areas, I experience very few breathing problems, even during the high allergy season, which is now. Therefore, I can only conclude in an empirical sort of way that breathing difficulties can be exacerbated by Mother Nature, but breathing problems definitely occur in the presence of man-made pollutants such as vehicle exhaust.

As you may know, asthmatics require rigorous treatment and expensive medication. I did have a very good quality of life at one time. Now

Ronald Strassburger - Nissan North America
I'd like it back; we all would.
I wanted to refer you just briefly to an article that appeared in this morning's New York Times and it talks about children in crisis. It refers to the fact that 38 percent of the 8,000 homeless children in New York City have been definitely diagnosed with asthma. Again, I think we can conclude that that is because they are not in a suburb, they are not quietly at home often, they are outside, and that is taking a toll.
Well, thank you very much for hearing me. I appreciate it.
MS. OGE: Thank you. Thank you for taking the time to share your views with us.
Mr. Strassburger.
MR. STRASSBURGER: Good morning. My name is Ronald Strassburger. I'm corporate manger of technical affairs at Nissan North America. This morning I'd like to focus my comments on the mid-term review posed by the Alliance of Automobile Manufacturers. But first, let me just say, number one, Nissan is a member of the Alliance as well as AIM. We were involved in preparing the testimony, and we fully support the testimony given by those

Ronald Strassburger - Nissan North America

two associations. Also, Nissan supports the goals laid out by EPA for this rulemaking, and we're very pleased that EPA has recognized the linkage between vehicle and fuels and the fact that they work as a system and that they have proposed and integrated rules, and we feel important that the final rule also be integrated with it.

Let me turn to the mid-term review. The Alliance has proposed a two-step phase-down to a common 0.07 NOx fleet average requirement for all vehicles 0 to 8500 pounds. This is similar to the proposal that EPA has made with one distinction, and that is, EPA has proposed a single set of phase-downs for vehicles under 6. We do agree that this is a historic rulemaking, not only in the levels of standards that are proposed here, but because we are at a point in time when there is a revolution of sorts brewing in the types of powertrains that may power our vehicles in the future.

The industry is working towards perfecting advanced fuel efficient technologies such as gasoline direct injection engines, hybrid electric vehicles and fuel. The automotive industry

Ronald Strassburger - Nissan North America is committed to continuing development of these new technologies but, however, with any research, there are no guarantees. EPA determinations with regard to feasibility, cost, energy impacts and the cost impact on competition will rely on some degree on the Agency's ability to make educated guesses about what will happen in the future. And the most reasonable way to minimize this uncertainty is to conduct a mid-term review.

Therefore, the Alliance is calling for that EPA should require, via this rulemaking, an independent third-party review of its standards, and that this review should be commenced in 2004 with the purpose of assuring based on accurate and up-to-date information that the post-2007 standards that the Alliance or the EPA has called out continue to meet statutory requirements. Such pre-planning would ensure the fairness and workability of a Tier 2 rule and would help to avoid a costly and time-consuming judicial review process on the issue of feasibility.

Yesterday we heard -- I think I heard, anyway, some threats that they there might be litigation. That's not unthinkable that that would

occur. I think the mid-term review would actually strengthen EPA's hands in that regard in defending a mid-term review. An important thing about a mid-term review is that it allows manufactures to build on the healthy down payment that they have made via the NLEV program and make additional reductions, capture additional reductions under the Tier 2 program while we continue to work toward advanced technology vehicles.

Therefore, we are calling for a panel of experts with expertise in automotive engineering, environmental engineering, and economics to be brought together and selected through a joint government industry process, again, beginning in 2004.

We believe the mid-term study should examine the availability of technology including costs for meeting for the exhaust emissions standards for Model Year 1998 and later model year vehicles for all vehicles 0 to 8500 pounds. And in examining the availability and cost technology to meet the standards in the facing schedules proposed, the study should address such things as reliability, whether reasonable, reliable technologies will be

Ronald Strassburger - Nissan North America
available in the time frames required by the rule. It should address the availability of precious metals. Yesterday we heard Honda testify about their concern about the availability of precious metals, and that is actually an industry concern.

The study should also look at the cost of emission control technologies. For this purpose, we would be recommending through our written comment that reasonable cost effectiveness metric to be used during the study.

The study should also consider the capability of use in lean-burn and fuel-efficient engines. The panel should consider whether technology satisfying the emissions criteria will be capable of being used in vehicles powered by lean-burn and fuel-efficient internal combustion engines running on the fuels mandated for nationwide sales by January 2, 2007, and thereafter.

The study should also look at consumer welfare effects the Tier 2 proposal will have, the possibility of imposing standards that could force certain vehicles out of the market, the vehicles that consumers want and need. It should also look at the employment impact. And finally, it should

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also look at other federal policy considerations, such as fuel economy and other auto safety regulations that may come into effect in the time period proposed.

The EPA should use this mid-term review to determine whether mid-course corrections to the standards proposed in the out years is necessary and that it determines -- and this is an important point, this is a EPA determination. If EPA determines that the technology likely to be available in the time frame 2008 to 2011 fails to satisfy any of the criteria set forth and agreed upon by the panel, then the standards applicable in Model Year 2007 should continue until such time as EPA revises the schedule.

And I want to emphasize here that we are not proposing triggered standards. The concept here is patterned after the concept followed in California when they have set technology enforcing standards, that is, the concept of biannual review; or perhaps more accurately, the model that they used when they formed the battery technology assessment panel to review the zero emissions vehicle mandate; again, a panel of experts.

The standards are put in place. This is what we work an engineer to and they are only changed after EPA has determined that they need to be changed.

MS. OGE: How are we doing, Joe, with time? You're the time-keeper.

MR. GUY: Just about one minute.

MR. STRASSBURGER: I also want to emphasis that this is not an attempt to derail Tier 2. This is an attempt to move forward in the face of uncertainty to allow the industry to take on increased risk and capture additional gain, emissions reduction gain. I would note that the Clean Air Act, it's the very process that we're involved in began with a study. And in that study there was a set of default standards that were suggested. And in actual fact, the standards proposed are significantly more stringent than the default standards. Thank you.

MS. OGE: Thank you. Mr. Strassburger, the only comment that I would make is that I did have the opportunity to meet with a number of members of Nissan last Tuesday, and I would strongly recommend that for the written testimony, additional

testimony, that you need consolidate the information that was provided to me on Tuesday and the testimony that you have given us here today so the public can have the full view of Nissan's perspective of this program.

MR. STRASSBURGER: We will be submitting written comments and we will also be commenting through the Alliance and we expect to make several recommendations in this area, in terms of structure, evaluation metrics, et cetera.

MS. OGE: Thank you. Ms. Maria Bechis.

MS. BECHIS: Good morning. My name is Maria Bechis. I am Vice Chair of Bucks County Group of the Sierra Club. I am here not only as a representative of an environmental advocacy organization, but because I have witnessed firsthand the debilitating impact of asthma on children and adults. My nine-year-old daughter and 47-year-old husband have asthma. My daughter took time off from school yesterday morning to attend a press conference in front of this EPA building. My daughter and husband have difficulty breathing and breathe painfully on bad ozone days in the summer. My daughter did not undergo necessary surgery in

1997 because of her wheezing.

Death rates for asthmatic children, rising 6 percent a year, have doubled between 1980 and 1993. Nearly 5 million children, 7 percent of the population, have asthma. The medical treatment for these children cost $6.2 billion a year. These children sulfur miserably. They cannot play outdoors in the summer and are dependent on medications and inhalers. The Clean Air Act directs the EPA to set air quality standards at levels that protect public health with an adequate margin of safety. The EPA must base their decisions on the best available science and public health considerations alone and must not consider the cost of implementing such standards. That is the law. To harried parents in hospital emergency rooms, no cost is too high to protect the health and lives of their children.

Volatile organic compounds, oxides of nitrogen, and sulfur dioxide are the precursors for ground level ozone, smog, and the particular matter that cause excess mortality, hospital admissions for respiratory diseases, and decreased lung function.

Bucks County, where my family resides,

does not meet air quality standards. We need cleaner air to breathe. We, the Bucks County Group of the Sierra Club, and an Sierra Club as a whole, support Tier 2 standards for nitrogen oxide and sulfur proposed by EPA for vehicle emissions and gasoline which will slash smog-forming pollution.

We strongly urge the EPA not to heed the oil industry and auto industry, especially sport utility vehicle manufacturers to extend the time line for implementation of these standards.

I brought with me something that little children use with there inhalers. Because little children have difficulty taking in the right dose, they have these gadgets and they carry them around with them in school and they attach their inhaler to these gadgets and they must breathe through this so that they get the appropriate dose of their albuterol or other medications that they use for asthma. And my daughter carries one of these around in the spring and early summer when she is in school because she does have difficulty breathing on bad ozone days. These little gadgets are quite expensive. They're $25 apiece. And she's quite responsible; she hasn't lost hers. But when you

consider that little children misplace these things, lose these things, damage these things, it can get quite expensive for families.

And we'd like you to consider carefully the increased benefits, the decreased number of days children will be losing from school, the number of days my husband loses from going to work. All of this far outweighs the cost required to implement these new standards. And we will respectfully submit the comments to the panel the, EPA panel.

And to my comments I have attached a letter that my 9-year-old has written for all of you to see. Thank you for consideration.

MS. OGE: Would you like to read the letter?

MS. BECHIS: It was a short letter that she brought with her yesterday. And what she says in this letter is:

"My name is Meggy Bechis. I am 9 years old and I have asthma. We learned that I had asthma in 1997. I was scheduled to have ear tubes put in my ears, but when I went to Children's Hospital and they listened to my chest. They hear Wheezing so they didn't do my operation. It would be dangerous

because of the Wheezing.
"When there are hot summer days and sometimes even in the winter, I have to use this inhaler. It helps me breathe much better. It's really hard to breathe especially when air is dirty. Sometimes I can't play outside because it's too hard to breathe.
"I am here to ask the EPA to stop harmful chemicals from coming out of the tailpipes of cars and trucks."
Thank you for your consideration.
MS. OGE: Thank you.
(Applause.)
MS. OGE: I have a question for Mr. Kata. I believe you testified that VW recommends bins of .6 grams per NOx until 2007 and potentially .4 bins beyond 2007; is that accurate?
MR. KATA: Yes.
MS. OGE: I just want to ask is this recommendation, would you consider this type of recommendation if fuel, the diesel fuel, is clean? Or you are suggesting that you need clean diesel fuel to meet this .6 and .4 upper bin requirements?
MR. KATA: We need clean diesel fuel to

meet the -- the recommendation for the .6 and .4 was basically the endorsing the Alliance proposal. We are a member of the Alliance and have worked with them, and that recommendation was endorsed under the Alliance proposal and would like to have those bins available to allow us to continue development of technology, particularly the area of advanced fuel efficient technology over the period of time until more advanced emission control systems can be developed.

MS. OGE: But the .6 and .4 numbers that you have suggested and the Alliance suggested could be met with today's fuel or today's technologies?

MR. KATA: In some cases they can.

MS. OGE: And then Mr. Charbonneau earlier testified that with cleaner diesel fuel -- his company believes that they can meet the .07 grams per NOx standard that EPA has proposed. What is your view on that or your company's view on that?

MR. KATA: With respect to the diesel technology that we have been looking at and also testified today the fact that the level compared to California, we've made the comment that we would need 30 ppm to get our light-duty diesels down to a

level of .3 grams using aftertreatment technology, namely, a de-NOx galleys. So that is about as far we've gone on public record in terms of stating our capabilities with light-duty diesels.

MS. OGE: Mr. Kata, let me see if I understood what you said. You have testified that the California Level 2 program that VW could meet -- did you say .03?

MR. KATA: I think may have misspoke. 0.3.

MS. OGE: Okay, that's what I heard. Why don't you correct the record.

MR. KATA: 0.3.

MS. OGE: O.3 with 30 ppm.

MR. KATA: That statement was made in the contents of 30 ppm.

MS. OGE: Does your company have any views about going further than .3 with cleaner fuel?

MR. KATA: I did allude to an SAE paper where we have done some studies with fuels that are available in Europe and these fuels are below 10 ppm and show promise for both reduced engine emissions and enable the technology using aftertreatment.

MS. OGE: Could you elaborate? What is

it? Is it farther below .3?
MR. KATA: I don't have it.
MS. OGE: Along with your verbal testimony, will you provide any additional information about what your company is doing. Thank you.
Any other comments. Thank you.
I would like to thank Ms. Maria Bechis for coming away from home to meet with us to share your testimony and your daughter's letter. Thank you very much. Thank you all.
We will start with our 10:45 panel. We would like John Crnko, Mr. Bruce Bertelsen.
Mr. Crnko, we will start with you this morning.
MR. CRNKO: My name is John Crnko. I'm with Antek. There's Antek industrial group. I'm with the Antek instruments group.
This presentation is not necessarily concerned with when or what levels of sulfur are eventually mandated as the US moves toward cleaner motor fuels. It does put forward the notion that no matter what sulfur levels are targeted, US EPA should designate as its primary method the most

economical and capable ASTM test method.

In their proposed Tier 2 regulations, US EPA has stated D2622, WDXRF, be designated as the primary test method for sulfur. For the determination of sulfur fuels in the future and particularly at levels proposed by EPA, D5454, or UVF, has proven to be a superior method to D2622. This presentation will provide evidence that demonstrates why D5453 should be designated as the primary test method for sulfur in fuels.

Based on testimony heard so far during these hearing, there can be little doubt that the US marketplace will have lower sulfur fuels in its not too distant future. Regardless how the proposed sulfur levels and effective dates pan-out the petroleum community will need its most accurate and flexible tools.

If a gasoline sulfur program that is similar to the current proposed EPA Tier 2 regulations is enacted, the oil industry will soon be routinely analyzing motor fuels for very low sulfur levels. Should the Averaging, Banking and Trading or ABT provisions be enacted, refiners and blenders will need to measure ever lower sulfur

levels as they seek to earn maximum ABT sulfur credits.

Obviously both regulations in industry must consider the impact of producing low sulfur fuels.

In September 1992, the California Air Resources Board, or CARB, adopted regulations requiring reformulation of California gasoline. The CARB regulations established a comprehensive set as of gasoline specifications designed to achieve reductions in emissions of VOCs, NOx, carbon monoxide, sulfur dioxide, and toxic air pollutants from gasoline-fueled vehicles. The CARB regulations also set standards for eight gasoline parameters: Sulfur, benzene, olefins, aromatic hydrocarbons, oxygen, Reid vapor pressure, and distillation temperatures for the 50 percent and 90 percent evaporation points.

During blending operations, the specifications for benzene, olefins, Reid Vapor pressure, et cetera, are sometimes met well before the sulfur level reaches 30 parts per million. Therefore, many current producers of gasoline for California consumption routinely must measure

gasoline with sulfur concentration at less than 15 parts per million.

US EPA is correct to seek comment as to if ASTM D5453, sulfur by UVF, should be designated as the primary sulfur test method. Currently D2622, sulfur by WDXRF, has been designated as the only EPA approved sulfur test method. However, the EPA has recognized that in certain situations D2622 has limitations. For instance, where 30 ppm to 80 cap, low sulfur fuels must be produced, the EPA agreed to recognize test methods allowed by the California EPA.

As we know, in the mid-1990s gasoline produced for California consumption was required to meet 30 ppm average to 80 ppm cap sulfur specifications. This prompted a group of refiners, Western States Petroleum Association, or WSPA, to petition the California Air Resources Board, CARB, for more flexible and economic sulfur test methods.

What WSPA and CARB needed was an economical test method that could measure very low levels of sulfur while giving the same or equivalent results as found when D2622 was used for the analysis of higher sulfur levels. Various

laboratory studies and cooperative multi-laboratory testing revealed D5453 was such a sulfur test method. The displayed California laws resulted.

Further evidence that the California law was analytically sound is readily available. Under ASTM leadership, an independently-run sample cross-check testing program, allows individual laboratories to participate in an ongoing sulfur analysis comparison called Round Robin.

Data for samples containing less than 10 ppm sulfur has been collected from this ASTM cross-check program. This data comes from about a three-year time period ending around December '98. This data was compiled by Southwest Research Institute, or SWRI, and clearly illustrates that D2622 has much higher relative standard deviation, or RSD, with samples that contain less than 10 ppm sulfur.

A convenient term to describe the message delivered by this data is the term "reproducibility." ASTM uses reproducibility to express the degree of agreement that a group of separate laboratories demonstrate when they analyze the same sample using the same test method. The

high D2622 RSD numbers indicate that different laboratories would have trouble getting the same answer.

Another critical analytical range lies between 10 and 30 ppm. In this range, D2622 continues to have difficulty with sulfur levels less than 15 ppm, as evidenced by the much higher RSD. Note that around 30 ppm , D2622 can have an improved reproducibility, but D5453 still have one-half the variation exhibited by D2622.

These 10 to 30 milligram samples are also from ASTM laboratory cross-check program. They include reformulated gas. That's RFG that you see up there. This table summarizes data generated within the ASTM cross-check program between June of '96 and approximately December 1998.

It should be emphasized here that all this data being presented here today has been independently produced and gathered. It's not cooked up the Antek's Laboratories; it represents work does by dozens of different laboratories and often on a world-wide basis.

The superior performance of D5453 can be illustrated. Here, the D5453 data from the previous

two slides is graphed. You'll see X exist on the horizontal, concentration milligrams per kilogram. On Y axis is the standard deviation number.

This graph illustrates that D5453 is capable of very good accuracy and between lab reproducibility levels less than 30 ppm and is particularly capable of accurate precise results when sulfur levels get below 15 ppm.

Here D2622 performance for the same samples are graphed. When compared to the previous slide, D2622 reproducibility is clearly less than that demonstrated by D5453. Again, the X axis is concentration. Y axis is standard deviation.

D2622 should be designated as the alternate test method because its results can be unreliable at lower sulfur concentrations. D2622 has a proven record for determination of higher level sulfur concentrations.

D5453 also has the analytical range to provide equivalent sulfur results in higher concentration fuels. Here is a collection of all fuel samples analyzed by both D5453 and D2622 for sulfur levels less than 500 parts per million, again, from the ASTM laboratory cross-check program.

It includes reformulated gasoline, motor gasoline, diesel and jet fuel. This table summarizes data generated within the ASTM cross-check program between June 1996 and approximately December 1998.

MS. OGE: Excuse me, Mr. Crnko. Your time is almost up.

MR. CRNKO: This data confirms and reinforces the conclusions of the WSPA and California EPA regarding the equivalency of D2622 and D5453 for higher sulfur concentration samples.

D5453 provides superior sulfur test results at lower sulfur levels and equivalent measurements at higher sulfur concentration levels. Allowing the use of D5453 could enable significant capital savings for the fuel-producing community, while giving them a better measurement tool as sulfur concentrations continue to drop.

The D5453 test method has already been approved by other regulating agencies and has proven its worth time and time again in daily low sulfur fuel production as well as in general use on a worldwide basis.

D5453 should be designated as the

primary sulfur test method. D2622 and possibly other ASTM test methodologies should be designated as the alternate test methods.

MS. OGE: Mr. Crnko, please submit your statement for the record.

Mr. Bertelsen.

MR. BERTELSEN: Good morning. My name is Bruce Bertelsen. I'm the Executive Director of the Manufactures of Emission Control Association.

MECA is pleased to present testimony in support of the EPA's proposed Tier 2 standards and limits on the sulfur levels in gasoline. We believe an important opportunity exists to significantly further reduce emissions from passenger cars and light-duty trucks by utilizing a systems approach which combines advanced engine designs, advanced catalyst technology, and low sulfur fuel. EPA's regulatory initiative recognizes the importance of promoting this systems-type approach and the Agency's proposal constitutes a carefully crafted and balanced program that, it finalized, will result in substantial cost-effective emission reductions over the next several decades.

MECA is a non-profit association made up

of the world's leading manufacturers of motor vehicle emission controls. Our members include companies with over 25 years of experience and a proven track record in developing and commercializing exhaust control technology.

Today I'd like to briefly summarize MECA's position on EPA's proposed initiative. MECA plans to submit more detailed written comments.

We believe the EPA standards for vehicles greater than 8500 pounds are technologically feasible. The proposed standards pose engineering challenges, but a clear technological pathway to meeting those standards exists and we're confident the engineering challenges can and will be met. The Tier 2 standards likely will be met by combining advanced catalyst technology already available, and being further optimized with advanced engine designs and fuel preparation/delivery systems that are already beginning to be utilized on an increasing number of light-duty vehicles. Engineering efforts between now and when the standards take effect will focus on optimizing control systems to match particular he emission reduction needs of the particular vehicle

involved.

EPA's Regulatory Impact Analysis thoroughly documents the technical basis and evidence for concluding that Tier 2 standards are technologically feasible. Over the past several years, MECA has appreciated the opportunity to work with the EPA to help demonstrate the role advanced catalyst technology can play as part of a complete emission control system to meet very low emission levels.

MECA recently completed a test program which provides further illustration of the types of low emission levels that are achievable. In the program, four vehicles certified to meet federal Tier 1 standards were equipped with advanced catalyst technology. These vehicles evaluated included two passenger cars and two pick-up trucks, one an LDT2 and an LDT3. The control systems were optimized, including modifications to the engine controls and were emissions tested. The tests included evaluations after the catalysts were aged using a recognized aging cycle to simulate high milage accumulation. To give you a frame of reference, all four of the vehicles had emissions

levels after being aged below the Tier 2 120,000 mile Bin No. 4 standards. A report summarizing the results of this test program has been provided to the EPA and we will include it together with our written comments.

The application of the types of advanced engine and catalyst technologies used in passenger cars and some light, light-duty trucks can be applied to heavy, light-duty trucks. Engine/emission optimizations have not been fully explored for this categories of vehicles compared to the technologies already beginning to be appearing on passenger cars. Also, the thermal durability of three-way catalysts historically was seen by some as a limiting factor because of the heavier operating loads of vehicles designed and used for commercial applications generate higher exhaust temperatures. The thermal durability of three-way catalysts, however, has greatly increased in the past five years from 900 degrees Celsius to 1100 degrees Celsius. Thus, the higher temperatures that might be experienced with these categories of vehicles are not a barrier to applying the same type of advanced catalyst technologies used on passenger cars.

Bruce Bertelsen - MECA

Reducing emissions to meet the Tier 2 standards is without question the greatest engineering challenge posed by the Tier 2 proposal. We believe substantial emission reductions from light-duty diesel-powered vehicles are possible by, again, combining advanced diesel engines with advanced exhaust emissions. Our member companies are continuing their efforts to optimize a variety of exhaust controls to reduce PM and NOx emissions, including oxidation catalysts, PM filters, and lean NOx controls. The current level of sulfur in diesel fuel is a barrier to the introduction of some of these promising technologies, including lean NOx catalysts, NOx absorbers, and certain particulate filter designs. Consequently, we support reducing the sulfur level in diesel fuel, and we will submit comments in response to EPA's federal register request for information on this issue.

We support EPA's proposed measures designed to provide vehicle manufacturers considerable flexibility in meeting the requirements of the Tier 2 program. Phasing in the Tier 2 standards over several years, utilizing a corporate average NOx approach, allowing manufacturers to

select from different bins to meet their compliance obligations, providing intermediate in-use compliance standards for the first two years, and other similar measures will help enable the vehicle manufacturers to meet the challenges of the proposed Tier 2 program in the most effective and less disruptive manner.

With regard to gasoline sulfur limits, MECA supports EPA's proposal as it relates to the levels of sulfur in gasoline. Reducing the levels of current levels of sulfur in gasoline is absolutely critical to maximizing the emissions reduction benefits of EPA proposed Tier 2 program.

As EPA has documented in its regulatory support documents, sulfur in gasoline inhibits the emission control performance of catalyst technology. Sulfur is an inhibitor which strongly competes with the exhaust pollutants for space on the active catalyst surface. Also, it is well known that sulfur can penetrate into the catalyst surface and, upon extended exposure to sulfur, can cause irreversible damage to the catalyst.

A series of studies by the auto manufacturers and the Coordinating Research Council

confirm the negative impacts on vehicles designed to meet the LEV and ULEV standards with sulfur in fuel. While some improved sulfur tolerance of catalyst technology has been achieved, a completely sulfur tolerant catalyst is not available, nor do we expect that such a catalyst will be developed. On the issue of reversibility, a recent CRC study showed that the effects of sulfur are not always fully reversible. In addition, that data generated by one of our members further confirms that when catalysts are aged on high-sulfur fuel, the prospects are not good for complete regeneration of the catalyst even when the vehicle subsequently operated on fuel with low sulfur levels.

Finally, we believe the prospects for catalyst regeneration will continue to diminish due to the elimination of the wide air/fuel ratio excursions as control systems are improved to meet increasingly tighter standards that go beyond LEV and ULEV standards and to comply with EPA's new Supplemental Federal Test Procedure.

We also believe that EPA should consider the benefits of further reductions in sulfur beyond the levels currently proposed in light of the

emerging technologies such as lean NOx catalyst and NOx absorber technologies which likely will be used on direct injection engines. If very low sulfur gasoline was available, it would increase the options available to the auto manufacturer to offer very fuel efficient vehicles meeting Tier 2 standards.

In conclusion, while we recognize that the proposed Tier 2 standards and sulfur limits presents new challenges, we also believe those challenges can and will be met. We are optimistic that the end result of the considerable efforts that will be needed to meet EPA's proposed program will be a wide choice for the consumer of high performance, high quality, fuel efficient, and clean vehicles that achieve Tier 2 standards. Our industry is committed to do our part to ensure that if the Tier 2 program is adopted, the desire emissions reductions will be achieved.

MS. OGE: Thank you. Mrs. Laura Kriv.

MS. KRIV: Good morning. My name is Laura Kriv. I'm Legislative Director of 20/20 Vision. 20/20 Vision is a grassroots group and is based in Washington, D.C. On behalf of our over

10,000 members nationwide and our 1,000 members in Pennsylvania, I'm pleased to support EPA Tier 2 standards. 20/20 Vision would like applaud EPA for your commitment to protecting the public health and the health of our environment and for taking the steps needed to make sure the next generation of vehicles on the road are clean. With over 20,000 vehicles registered in the US traveling over 2 trillion miles annually, auto pollution is one of the main sources of air pollution. As vehicle use escalated and populations are on the rise, more people than ever before are suffering health impacts because of air pollution. As you know, children, the elderly, and those with respiratory illnesses are most at risk. While we may not be able to significantly reduce the number of cars on the road, the EPA Tier 2 proposal will help strengthen auto emissions standards for cleaner cars and cleaner air.

Specifically, our members support the following key elements in the Tier 2 proposal: Requiring new cars and light trucks to emit 80 percent less, setting the same tough standards for cars, SUVs, and light trucks, and requiring low

sulfur gas to be sold nationwide.

It's clear that the American public want consistent standards. A recent pole by the American Lung Association found 91 percent of you believe SUVs and minivans should be required to meet the same standards as cars. Our members were shocked to learn that under the current standards they were allowed to emit more pollution than cars.

EPA estimates the Tier 2 proposal combined with low sulfur gasoline will have the equivalent effect of taking 166 million cars off the road when the proposal is fully implemented.

However, 20/20 Vision feels that there are improvements that need to be made to strengthen this proposal. There should no special treatment for heavier vehicles. Heavier vehicles are the dirtiest vehicles. Although the fleet average between 6,000 and 8500 pounds are fairly small, it is one of the fastest growing segments of new vehicle sales.

The 10-year phase-in schedule for the larger SUVs and minivans should meet the same standards at the same time.

There should be no special treatment of

diesel engine technologies. All of the vehicles, regardless of engine technology, should meet the same tough standards.

The phase-in period for low sulfur fuel should be faster. The current proposal to reduce sulfur content in gasoline gives more time to small refiners. Low sulfur gasoline need to be adopted nationally at the same time as new emissions standards.

There should also be increased incentives for advanced technology vehicles. The current proposal do not provide incentives for the development of cleaner technologies.

I appreciate the opportunity to express our support and to offer ways to improve this program. Tier 2 is a strong proposal. Since this decision will affect our air quality for decades to come, we need the strongest possible standards now that will protect our health, our children's health, and our environment.

On behalf of 20/20 Vision and our members and on behalf my one-year-old daughter, I thank you for your leadership in establishing a program that will ensure cleaner air and cleaner

environment for years to come. Thank you.
MS. OGE: Thank you. Ms. Parks.
MS. PARKS: Good morning. I thank the EPA for this opportunity to testify in support of the next round of NOx and particulate matter pollution limitations in American vehicles. I am Nancy F. Parks, Chair of the Sierra Club, Pennsylvania Chapter Clean Air Committee. I represent over 19,000 members in Pennsylvania and I also serve on the Sierra Club Clean Air Committee.
I want to applaud the EPA's current efforts to make the air safer to breathe for the children and the elderly, and those with chronic respiratory disease in Pennsylvania. And with a 117 million Americans living in areas with chronic ozone smog exposure, and as many as one-half of all Pennsylvanians still chronically exposed, and with asthma rates in children rising 75 percent since 1980, it is vital that EPA continue to target all large polluting sectors, including motor vehicles. This new round of vehicle emission controls is timely and necessary, with a focus on vehicles as the largest of the non-industrial sources of ozone smog-forming NOx precursors and particulate

pollution.

Pennsylvanians are worried. In the Chesapeake Bay Foundation's 1998 pole, 26 percent of Pennsylvanians thought that the environment in Pennsylvania was getting worse; 56 percent thought the environment had stayed the same, effectively not doing any better; 46 percent of Pennsylvanians thought that their air and their water would be more polluted 20 years from now than it is.

The Sierra Club must agree. With the recent decisions of the DC Circuit Court which may have stopped dead, however temporarily, the efforts of EPA to reduce dangerous NOx, ozone smog and PM air pollution from plants, we must wonder what can be the future for reducing air pollution by emissions limits based on human health-based standards. Reductions are absolutely necessary to our children's health here in Pennsylvania. Additionally, in July of 1998 NESCAUM released a report that showed that the financial impact of not implementing NOx controls in the Northeast United States for air pollution transported from power plants elsewhere would likely reach between 1.4 to $3.9 billion in additional costs linked to local

control measures that must to compensate for no reduction in transported pollution. With the DC Circuit decisions, it has become vital that we attack large inputs of NOx pollution elsewhere, and the Tier 2 NOx controls on passenger vehicles will help to relieve some of the ozone smog precursor nitrogen pollution burden.

Already the CBF poll found that 65 percent of adult Pennsylvanians believe that Pennsylvania's existing regulations are not strictly enforced. More than half, 56 percent, believe that our state's environmental regulations are already too weak.

EPA must use all possible authority that it clearly possesses under the Clean Air Act to decrease the range of air pollutants that are emitted by the wide diversity of polluting sectors. This is another reason why the Sierra Club supports such a well-structured Tier 2 air pollution reduction program.

In the CBF poll, 25 percent of Philadelphians specifically felt that in general pollution was the biggest problem in Philadelphia, with a full 21 percent of those contacted thought

that air pollution was the single more environmental problem facing the State of Pennsylvania today.

So here Philadelphians think that air pollution is one of their biggest problems. We couldn't agree more. This city literally stinks of air pollution. It burns your eyes, irritates your lungs, and this city is not going to be truly liveable until soot, smog, toxins, and stink the malodors are removed. EPA must proceed full speed ahead with its vehicle emissions reductions, which it unquestionably has the authority to do.

I have recently read EPA's enforcement alert entitled, "Compliance with Permitting Critical to Clean Air Act Goals." EPA has identified an ongoing problem with make the Clean Air Act affected sources, both industrial and non-industrial polluters, comply with existing mandatory requirements. Delays, appeals and litigation are common. But delays in achieving safety for our children through clean are for them to breathe is the result. So you see for this reason, we see more and more reasons EPA must proceed as quickly as possible with each sector's pollution reduction structure schedule, timetable an enforcement. And

hence, the current focus on passenger vehicles.

So what should new controls on dirty vehicles accomplish? There should be no special treatment of heavier vehicles. Close that loophole. All passenger vehicles, including minivans and the ubiquitous sport utility vehicles should all meet the same requirements at the same time, by 2007.

The heaviest SUVs should not be given extra time to clean up on a separate schedule. A 10-year phase-in schedule for the heaviest SUVs far exceeds any phase-in period ever applied to other passenger vehicles. And the victims of air pollution, once again, will be forced to wait for their relief.

Additionally, these overgrown SUVs could become the focus of increased production of automakers, as business attempts to, once again, evade regulatory requirements.

There can be no special treatment of diesel engine technologies. Diesel engines emit twice the PM soot and up to 10 times the ozone smog forming NOx, but because these engines are efficient, automakers want to expand use of these engines in SUVs. Because diesel exhaust contains

toxics and likely contains carcinogens, there should be no incentives created for the use of these engines in SUVs.

Current sulfur levels in gasoline will damage the advanced emission control technology systems, catalytic converters, on cleaner passenger vehicles to be sold in 2004. And while the average sulfur content and gasoline at this time is 300 ppm, reducing sulfur content in all gasoline should occur at the same time as the tailpipe emissions limit become stricter. And also, EPA should not provide time for small refiners. Reducing sulfur in gasoline to this level would be analogous to removing 54 million passenger cars off our roads nationally.

These new tailpipe standards should encourage and provide incentives for advanced technology vehicles running on alternative fuels and engines systems. And EPA should add incentives for hybrid, electric and fuel cell vehicles.

Thank you. And I would welcome the opportunity to comment in more technical detail by your August 2 deadline.

MS. OGE: Thank you, Mrs. Parks. Mr.

Kevin Scott

Kevin Scott, welcome for the second time. Mr. Scott was with us last night with 12 of us here and he wanted to come back and share his views with the rest of you, so please go ahead.

MR. SCOTT: Good morning. Thank you for giving me this opportunity to share my views as a citizen and taxpayer. I want to commend the EPA for taking this very significant step toward reducing air pollution. We know that tens of thousands of Americans die prematurely each year as a result of air pollution, while millions more sulfur illness because of it. It's therefore tragic that we'll have to wait years before we see these reductions. These deaths and illnesses are all the more tragic considering that the oil and auto industries could have easily attained these reductions and pollution years age but have thus far chosen not to do so. So unlike those who become ill and die from smoking cigarettes, a choice that they themselves have made, the victims of air pollution suffer as a result of choices made by others.

Well, given that people are dying and getting sick from air pollution and given that the oil and auto industries are capable of doing

something about it, the question arises, well, why haven't they already done so? The answer is simple: Money. Unfortunately, these corporations that focus on the bottom line while ignoring their responsibility to the society.

The oil and the auto industries have fail to voluntarily make the relatively modest investment necessary to mitigate the harm that their products cause to our health. That's why they must now be required to do what they could have and should have done long ago. But while the industries' lack of initiative in reducing harm from their products is at best irresponsible, their coming here today in an active attempt to derail, delay, and weaken the Tier 2 standards is unconscionable. EPA proposal's is more than generous in giving the industries plenty of time to meet the standards at a minimal cost. What the industry representatives are really saying is that any cost which affects their current record-breaking profits, no matter how slight, is unacceptable to them and that they don't care about our health. I find this level of greed and disregard for human health and safety to be shocking and appalling, not

only on a corporate level, but on an individual level. I think that every single person who's come here today to oppose the Tier 2 standards should be ashamed of themselves.

For the record, no one is paying me to be here. I wonder what the industry reps are being paid. I hope it's a lot. I hope they haven't sold out everyone in this country for a pittance. However much money it is, I wonder how they live with themselves. I wonder how they look their neighbors in the eye knowing that they're actively working to endanger those people's health. I wonder how they face their families knowing that if their efforts are successful, they're likely to harm the health of their own children for money.

We all breathe the same air. No one has the right to force me to breathe their pollution, not when it's so unnecessary and not just to maintain their profits.

Ladies and gentlemen of the EPA, I ask you and everyone at EPA to remember the importance of the mission, to protect human health. Americans want clean air. More to the point, Americans need clean air. I urge the EPA to stand strong against

these disingenuous and amoral efforts of industry and adopt the strongest possible Tier 2 standards. Thank you.

(Applause.)

MS. OGE: Thank you. Thank you, panel, for taking the time to share your views with us. We appreciate your statements and your comments. I don't have any questions. I don't if my panel members do.

MR. PASSAVANT: I have one question. Do you represent a company that markets D5453?

MS. OGE: This question is towards Mr. Crnko.

MR. CRNKO: We make apparatus that complies to that test method.

MR. PASSAVANT: How about 2622?

MR. CRNKO: We do not, for that method.

MR. PASSAVANT: Will you send a brochure that describes your product when you send in your comment?

MR. CRNKO: Yes.

MS. OGE: Thank you very much.

MS. MARTIN: We'd like to move forward with the panel that was scheduled at 11:30. And the

Dominic Varraveto - Black & Veatch

first speaker would be Mr. Dominic Varraveto, Mr. Reg Modlin, Brooks Mountcastle, and Mr. George Thurston. We also ask Mr. Peter Homer to join this panel.

Mr. Varraveto.

MR. VARRAVETO: Good morning, and thank you for the opportunity to testify today. My name is Dominic Varraveto and I am representing Black & Veatch, a global provider of technology, engineering, and construction services to the petroleum refining, gas processing and electric power industries. Black & Veatch is a recognized leader in providing sulfur control and recovery technology to refineries through its process division subsidiary formerly known as the Pritchard Corporation. I am also representing a joint technology effort between Black & Veatch and Alcoa Industrial Chemicals & Adsorbents, a provider of catalysts and catalyst powders to the petroleum refining industry and to suppliers of automotive converter catalysts.

Black & Veatch and Alcoa have jointly developed a breakthrough technology for removing sulfur from gasoline. The IRVAD process, as the

technology is called, uses solid alumina adsorbent to countercurrently contact liquid hydrocarbon in a multistage adsorber. The adsorbent is regenerated continuously using heated reactivation gas. In pilot plant tests, the IRVAD process has reduced the sulfur content of olefinic gasoline low enough to meet blend requirements for 30 ppm sulfur in gasoline as required by the Tier 2 proposal. This low sulfur gasoline can be produced without the octane debit typically associated with hydrotreating processes. In fact, by selectively removing molecular species with a pro-knock or predetonation tendency, the octane rating of the IRVAD adsorber effluent is actually increased.

As Black & Veatch and Alcoa move forward with plans for commercialization of IRVAD technology, we have been encouraged by the positive response from the refining industry. However, we do have concerns to bring to your attention today. Specifically, I would like to make a few comments about the Tier 2 gasoline sulfur proposal regarding EPA's analysis of technical feasibility, implementation and cost.

First, I would like to point out that as

an enabler of technology and facilitator of business strategies via engineering and construction project implementation, Black & Veatch has first-hand experience in successfully managing projects for industrial markets. Our project management experience tells us that project success is always constrained by technical requirements, schedule, and cost. It is unrealistic to attempt to simultaneously fix all three of these constraints. I would caution of EPA that in the case of the proposed low sulfur gasoline requirements they may have overspecified the implementation equation. By simultaneously setting rigorous nationwide reductions in gasoline sulfur content, by proposing industry implementation of new technology in a very narrow time frame and by presenting cost projections based on as yet commercially unproven technology, the EPA proposal portrays an unrealistic view for the public of the impact of the proposal. It is possible and highly probable that the refining industry will be able to deliver low sulfur gasoline to the US consumer in the proposed 2004 to 2006 time frame, but it is not as likely that the refining industry will be able to achieve this goal for the

cost projected by EPA.

My second comment regarding the Tier 2 low sulfur gasoline proposal is presented from the viewpoint of technology provider. Black & Veatch and Alcoa are concerned about the way EPA has portrayed new and emerging technologies for gasoline sulfur removal. In the proposal, EPA specifically and exclusively references two technologies and makes only vague references to other alternatives. We should urge the EPA to more clearly acknowledge other alternatives, like the IRVAD process. We do not think the EPA should endorse specific technologies for refiners to solve the low sulfur gasoline challenge. We would prefer the refining marketplace make this decision. Refiners should be given adequate time and incentive to evaluate, select and implement the most cost-effective solutions for supplying low sulfur gasoline.

Finally, I would like to complete my comments this morning by saying that Black & Veatch and Alcoa stand ready to support the goal of improved air quality by providing technology, engineering, and construction services for the production of low sulfur gasoline to the US refining

Reg Modlin - DaimlerChrysler

industry.

Thank you again for the opportunity to testify today.

MS. OGE: Thank you.

Mr. Modlin.

MR. MODLIN: My name is Reg Modlin, I'm here today to speak on behalf of DaimlerChrysler Corporation on the subject of EPA's proposal to modify vehicle emissions control regulations.

DaimlerChrysler is an industry leader when it comes to supporting the development of environmentally sound vehicle technologies. We demonstrated this in March when we introduced the world's first zero-emission hydrogen fuel cell passenger vehicle, and in May when we discussed our research on developing a gasoline fuel cell. We're demonstrating this commitment now by supporting the pursuit of tough emission performance goals. Reducing emissions will help in achieving the nation's clean air goals, and we stand ready to do our part.

As a member of the Alliance of Automobile Manufacturers, we contribute to the development of that organization's position and we

fully support it. Our program was offered in the spirit of the industry's previous voluntary initiative. The proposal was configured to address a few objectives:

One, we attempted to match prospective technology needed to meet emissions standards with fuel that will be available to customers when that technology is introduced in the future.

Next, we respect that oil industry's claim that time is needed to plan capital investments that would enable the production of cleaner burning gasoline.

And in the interim, we wanted to make optimal use of foreseeable technologies as we continue to work towards meeting clear air goals.

The Alliance's proposal makes sense because it meets our objectives and soundly beats the projected performance of EPA's proposal. Compared to the EPA's emission reduction goals 800,000 tons per year by 2007 and at 1,200,000 tons per year by 2010, the program proposed by the Alliance would achieve about 957,000 and 1,248,000 tons per year reductions projected for the same years. A Alliance proposal also continues to

provide even greater reductions into the future.

DaimlerChrysler supports a program in which car and light truck standards for nitrogen oxides eventually converge to a comparable level provided that an independent review in about 2004 verifies: That the price of emission reductions is cost-effective and affordable to our customers; and the feasibility of the program on, and availability of gasoline that limits sulfur content to less than five parts per million is in place, as identified; and standards are feasible for fuel-efficient lean-burn technologies; and standards do not adversely affect any company relative to others in the industry.

With these points in mind, I emphasize that we believe that removing sulfur from gasoline is critically important to giving auto manufacturers the chance to meet nitrogen oxide fleet average objectives.

Sulfur is a poison to exhaust treatment devices. As vehicle hardware becomes clogged up, it's ability to operate at maximum effectiveness and efficiency is seriously compromised. The conversion efficiency of a control device tested here shows a

loss of efficiency of 10 percent points within about 1200 miles when comparing the effects of gasoline containing 50 parts per million sulfur and 8 parts per million sulfur. A loss of 40 percentage points is noted as the mileage increases. The story is complete when we see the effect of reduced efficiency on emissions. A total loss of even 10 percent of catalyst efficiency will result in a vehicle not meeting the proposed standards, as you can see from the example.

A nationwide program is required. Everyone from New York to Montana deserves cleaner air. Ozone may be the issue in the East and Ohio Valley, while regional haze is the issue in the West. Reducing sulfur content of gasoline is an emission reduction strategy that promises to improve air quality conditions across the country. The mobility of the nation's vehicle fleet also demands nationwide control of fuel quality. Allowing control systems to be poisoned in one area so that they can increase the pollution in another does not make sense.

Sulfur-free gasoline would allow the manufacturers to bring cleaner, more fuel-efficient

hardware to the market. Devices that could further reduce nitrogen oxide and particulate matter are intolerant to sulfur in gasoline. DaimlerChrysler has consistently demonstrated its willingness to develop cleaner, world-class vehicles. We believe that these vehicles deserve cleaner, world class fuel. Unfortunately, much of the gasoline sold in the United States today has a sulfur content that exceeds that sold in third-world nations.

To reach the performance levels called for by the tough new standards all sectors, specifically the auto and oil industries, must do their part. All of the tools in the toolbox must be available to meet the performance levels we want to achieve. We will work in tandem with our suppliers to vigorously test the limites of technology for control system hardware. We call on the refiners to do the same in order to bring to market gasoline that does not hamper vehicles from operating as cleanly as possible.

Improved gasoline formulation is a critical tool in the effort to reduce auto emissions. In this decade, reducing sulfur is the most effective, immediate way to accomplish this

goal. Sulfur is a poison to the emission control system that, over time, will clog the pipes and prevent the system from working. EPA's proposal to reduce sulfur to 30 ppm is a good first step. The sophisticated, clean burning systems that automakers will develop to make Tier 2 standards will be wasted if sulfur in gasoline is not limited further by this rule.

Thank you for your attention and the opportunity to address these very important issues. Thank you.

MS. OGE: Mr. Modlin, thank you.

Mr. Brooks Mountcastle.

MR. MOUNTCASTLE: Good morning.

"I am writing to give my strong support to the proposed Tier 2 standards as a good first step toward making our air cleaner and safer. I live in the City of Philadelphia where I cycle to work and work outdoors with children and seniors 10 months of the year in urban parks. My father, grandmother, and two cousins suffer from respiratory conditions. In addition, I am an avid hiker in the Eastern Appalachians, where I have witnessed firsthand the damage done by smog and acid rain. In

so many ways, I and the ones I love and work with are dependent on clean air. Unfortunately, the air you and I breathe today does not qualify as clean or safe.

"Clean air is something we all deserve and the EPA now has a wonderful opportunity to make positive changes for us all. I implore you to take the following steps:

"Require sport utility vehicles, minivans, and light trucks to adhere to the same emission standards as regular automobiles. The current exemption allowing them to pollute inordinately is completely out of date and must be closed now.

"Secondly, the fuel we use must be cleaner. Current sulfur levels are far too high. Sulfur can damage pollution control systems in vehicles and must be significantly decreased nationwide. I would be more than happy to pay more for gasoline to ensure cleaner air. Along those lines, diesel vehicles should not receive any special treatment. They should be held to the same standards as other vehicles. Please address these in the final proposal.

Brooks Mountcastle - Jeff Tober

"Thirdly, we need to have better vehicles utilizing cleaner, less polluting technology on the read sooner rather than later. Necessity is the mother of invention and there is a definite public outcry saying that we need clean air. We can do better than the internal combustion engine and I implore the EPA to do all it can to make cleaner, more efficient vehicles available to the public.

"A few weeks ago, I saw a large advertisement painted on the showroom window of a Lincoln/Mercury dealer outside of philadelphia. It was advertizing their two new SUVs, the Navigator and the Mountaineer. The painting showed mountains, trees and rolling waters promising that the mountaineer and Navigator were Mother Nature approved. When I called the dealer to ask why they were approved by Mother Nature, I was told because they could take whatever she had to dish out. Well, that may be so, but I'm afraid Nature can't take everything that the SUVS are dishing out. There is no point in delaying these necessary steps. We all want and deserve clean, safe, fresh air. We can have a healthy economy and healthy air.

George D. Thruston - NYU

"I thank you for taking the strongest possible steps to safeguard our collective air."

Thank you.

MS. OGE: Thank you. Mr. George Thurston. Good morning -- or good afternoon.

MR. THURSTON: I am George D. Thurston, a tenured Associate Professor of Environmental Medicine at the New York University School of Medicine. My scientific research involves investigations of the human health effects of air pollution.

I am also Director of the National Institute of Environmental Health Sciences' (NIEHS) Community Outreach and Education Program at NYU. A goal of this program is to provide an impartial scientific resource on environmental health issues to decision-makers, and that is my purpose in speaking to you here today.

In 1997, I was named Chairman of the Canadian Government's Health and Environmental Impact Assessment Panel of their Joint Industry Government Study of Sulfur in Gasoline and Diesel Fuels. That panel's work resulted in a report that evaluated the potential health-related benefits, and

their monetary valuations, that would be expected to result from lowering the sulfur content of gasoline in Canada.

In part on the basis of that study, the Canadian government has now acted to require lowering of gasoline sulfur content down to 30 parts per million by the year 2005. Their final sulfur-in-fuels regulations, which are very similar to those now being proposed by the US EPA, will be published in the Canadian Gazette, Part II, on June 23, 1999.

What we found from the examination of both the costs and benefits of removing sulfur from gasoline was that this regulation will be a "win, win" both economically and environmentally. The costs to industry of removing the sulfur contaminant in gasoline will be greatly exceeded by the monetary valuation of the health benefits that would be derived from such a step.

The air pollution emissions benefits that result from removing sulfur from gas apply to all cars on the road. The removal of sulfur from gasoline stops the sulfur from poisoning the catalytic converters in cars, allowing the

converters to do their job of lowering pollution more efficiently, as we just heard. All motor vehicles, new and old, will benefit from the removal of sulfur, making them burn cleaner. In addition, this will contribute toward eliminating ozone air pollution episodes like the ones we have experienced in the past two weeks here in the Northeast.

In addition to allowing the cars' catalysts to do their jobs better and, thereby, lowering hydrocarbon and nitrogen oxide emissions from cars and reducing ozone in the air, the elimination of sulfur also cuts down on the sulfuric acid particles that can result from the sulfur itself. Breathing less particulate matter pollution is a noteworthy benefit of this regulation, as exposure to acidic sulfate particles have been shown by numerous studies, including those that I have conducted, to be associated with excess numbers of hospital admissions and daily deaths, as well as other health impacts. These various adverse health impacts will now be voided by the implementation of the EPA's new sulfur in gasoline regulations.

Also, if I have time, I brought along overheads I'd like some to show you. The Canadian

study of the benefits of removing sulfur from gasoline confirms what the EPA analysis has said: The health benefits to the public of this proposed regulation far outweigh the clean-up cost to industry.

The Canadian joint industry/government study was conducted to assess the cost and benefits of removing sulfur from gasoline in the Canadian cities of Toronto, Montreal, Vancouver, Edmonton, Winnipeg, Halifax, and St. John or 40 percent of that nation's population. Using sulfate as an index pollutant for the atmospheric pollution reductions expected, projected adverse effects reductions were estimated for premature deaths, hospital admissions, emergency room visits, asthma symptom days, restricted activity days, and new respiratory disease cases. Monetary valuations derived from the published literature for each health outcome were used to estimate the monetary values ascribed to the avoided pollution health effects.

The results of this Canadian study indicated that the health and monetary benefits of reducing sulphur in gas can be significant, with for example over 127,000 asthma symptom days a year and

82 premature deaths a year avoided in the seven largest Canadian cities in the year 2020. And for the year 2000, that's what this chart is of, the adverse health effects avoided and their monetary valuation by the year 2020 in those seven cities.

The estimated net present value of the monetary valuation of health benefits over the period 2001 to 2020 amounted to 5.2 billion Canadian with a 30 parts per million gasoline scenario, i.e., the control level adopted by Canada, and now being proposed by the US EPA, even after discounting at 3 percent. I don't really like discounting health effects like a piece of equipment. It's lives, but that's what I'm reporting. The health benefit valuation estimates derived in this manner for these seven cities alone greatly exceeded the central estimates of the nationwide control costs for all scenarios when viewed on a net per value basis. For the seven cities, the benefit-to-cost ratio came to 1.5 for the 30 ppm sulfur case, and when the entire Canadian population was considered, the benefit-to-cost ratio increased to about 2.3. Thus, the Canadian benefits were more than double the control costs.

To find a copy of the various Canadian reports on this subject, including my expert panel's report, on the internet, you can visit the web page. It's in my testimony. I can give you my web page.

In closing, I would like to point out that the projected benefits of preventing adverse health effects are not something nonexistent today that would be generated by the requirement to remove sulfur from gasoline. Instead, they represent real and already adverse health effects that will continue to occur if nothing is done. More important, they also represent adverse health events that can be avoided from happening by moving forward with the EPA proposed regulations.

Thus, this regulatory step should be viewed as a process of reducing the health price that is already being paid by the American people day in and day out in the form of reduced quality of health from high sulfur gasoline.

The EPA should move forward with their proposal to remove sulfur from gasoline in order to provide relief to the American people from the adverse health effects that are now needlessly occurring as a result of the fact that we have

allowed, and presently still allow, the sale of more polluting high sulfur gasoline to the American public.

MS. OGE: How are we doing on time?

MR. GUY: Two and a half minutes.

MR. THURSTON: The Health Benefits of Removing Sulfur from Gasoline was a title of an abstract we presented recently at the 1999 International Conference of the American Thoracic Society in San Diego, California. And the abstract is published in the American Journal of Respiratory and Critical Care Medicine in March 1999. And the list of co-authors are all members of the expert panel that I headed and include David Bates, R. Burnett, F. Lipfert, B. Ostro, A. Krupnick, R. Rowe from Status Consulting in Denver, so a blue ribbon panel looked at this question.

This is background. I think you know the Canadian Government was considering lowering the sulfur in gasoline from present levels, around 300-400 ppm, down to as low as 30 ppm, which was the lowest one that they looked and ultimately was the one that they selected. So the sulfur in fuels study was conducted to aid in the determination of a

cost-effective sulfur limit.

So the objectives were to estimate the health benefits that may be achieved in Canada by a reduction of the sulfur content and to compare the economic valuation benefits in the seven largest Canadian Cities with the nationwide economic costs of the cleanup.

Methods, selecting a suitable index pollutant of the atmospheric pollutant reduction expected. We used a somewhat similar method EPA used. So it was sort of independent check. We identified the health effects able to be considered. We applied suitable concentration response relationships from the published literature. And then we also looked at best available monetary values.

MS. OGE: Maybe you give us the conclusions. And it would be great if you can provide everything for the record so we can have it.

MR. THURSTON: These are in my submission. Basically our conclusion were the health and monetary benefits of lowering sulfur in gas can be significant. At 30 ppm, the Net Present Value of the estimated health benefits exceeded the

Nationwide clean-up costs by a factor of 1.5. And then when you looked at the nation, the benefit cost ratio was over 2.

And again, I have the web pages here.

MS. OGE: I was trying to read. What is it? If you can read --

MR. THURSTON: At 30 ppm, the estimated health benefits amounted to 5.2 billion Canadian dollars. And they exceeded nationwide cleanup costs by 1.5. And then, as I said, they're 8 billion once you adjust that to population. And the final report is on the web at this quite long address, and also their recent decision to set 30 ppm sulfur limit is on the web as well on the government site.

And so when the sulfur content of US gasoline is lowered, similar important benefits can also be expected.

MS. OGE: Thank you.

Mr. Pete Homer, please proceed.

MR. HOMER: Thank you. I'm a Native American from a Mohave tribe of Arizona. I'm the President of the National Indian Business Association. We represent 24,000 American Indian and Alaska native owned businesses. We're a

national trade organization that works out of Washington, D.C. I want to thank you for the opportunity to be here to testify on some of the these very, very important issues.

I'm here today in the interest of preserving the health and welfare of Native American and Alaska Native families and protecting the commercial interests of their family-owned businesses from the unintended consequence of government regulation.

The National Indian Business Association supports EPA's efforts to improve the nation's air quality through regulations that are rational, technologically feasible, and cost-effective. In Indian country, Native Americans and Alaska native owned family businesses, especially small and disadvantaged businesses, rely heavily on the use of pickup trucks and other medium and heavy-duty light trucks to maintain their livelihoods and family structures. These vehicles are essential to the continued economic viability and our commercial and recreational interests.

The automobile industry as a whole has made a great stride in reducing vehicle emissions

including medium and heavy-duty light trucks and application of new technologies. At the same time, the National Indian Business Association believes more should be done by the auto industry to help assure continued improvements in our nation's air quality. NIBA also believes, however, when imposing future regulatory requirements as are necessary to future control of vehicle emissions, that automakers be afforded appropriate flexibility and lead time needed to maximize cost or potential adverse product impacts. This is especially important for those manufacturers of medium and heavy-duty light upon which NIBA members depend.

EPA's proposed Tier 2 rulemaking would impose new requirements that, for the first time, would require medium and heavy-duty light trucks to meet the same emission standards as passenger cars and could affect affordability and utility of these vehicles.

As we understand it, the Alliance of Automobile Manufacturers has proposed to EPA an alternative that NIBA believes not only to be a rational technology, but an achievable alternative that along with requiring cleaner burning fuels, but

meet or achieve objectives while minimizing potential adverse effects on the ability and utility of medium and heavy-duty light trucks including diesel powered vehicles.

So on behalf of its over 24,000 members, National Indian Business Association calls on EPA to give the utmost consideration to the Alliance of Automobile Manufactures' alternative proposal to EPA's Tier 2 Gasoline Sulfur proposed rule. Thank you.

MS. OGE: Thank you. Any questions?

We have one question.

MS. MARTIN: Mr. Homer, I was wondering if you could expand for me the type of businesses your association represents and how the differences between the Alliance's proposal and EPA proposal would effect those types of businesses specifically.

MR. HOMER: Let me give you an example of the that. 95 percent of the families and businesses drive medium sized trucks. When we talk economics, when we talk what's right and making recommendations, you're looking at sort of like a new breed of American Indian in this country that is the businessman and the businesswoman who care about

their employees and care about the costs of all types of items. And so we think that we recommend that we have a balance here that is a balance between EPA and the automobile industry and that you come together with some sensible ideas of technology to get the job done. And to do that, we think it would be a level playing field if you could get together and do that. We have so many business. There are 103,000 Native American and Alaska Native owned business in this country. They're all kinds various business. A lot of construction, a lot of agricultural businesses, a lot of farming industry. Rural America is involved. Rural America is a little different than Philadelphia. And so I talk and I represent those individuals in this issue.

MS. OGE: Thank you, Mr. Homer. I'd like to thank each one of the panel members for talking the time to visit with us and sharing your views. Thank you very much.

Before we break for lunch, I would like to call on the following individuals to please come forward.

(Pause.)

MS. MARTIN: Ms. Moran, if you'd like

to begin.

MS. MORAN: I'm here with the New Jersey PIRG. Some of you may remember me from the ozone action kick-off at the museum a few weeks ago for a different program.

The reason I'm here today is that my mom is a school teacher and for years I would go and have lunch with her at her school because it coincides with mine. And each year that I do this, more and more children are staying inside for lunch and recess. And if you see these kids and you ask them how they feel about it and compare that to how these companies feel about their profits, I think the priority should be obvious here.

My point here is that we can't extend any time lines for any of these companies because it's technologically possible, EPA time lines or even more stringent one. It's entirely possible and that's what needs to happen here. If we were talking about time lines, I'd like to share something. Think about the time lines for those kids. Think about 14.6 million people in the US who suffer from asthma. What do their time look like? It might look a little like this, the increase in

Americans with asthma since 1980, that's where it starts. Then asthma attacks are the number one reason for children missing school. Next stage is that these children, especially from here from Philadelphia, we're fourth worst air quality and nationally there are 117 million Americans who live in air unsafe to breathe due to ozone or smog pollution. And then we come to 1998, where in the smog season in 1998 there were 47 violations of the EPA health standard from smog in Pennsylvania. This is what their time line looks like. At the end of their time line they suffer from 30 percent of the smog from NOx as from automobiles. They suffer from the 80 percent of deadly fine particles in our air caused by automobiles and the soot from vehicles classified as a human carcinogen. They suffer from the fact that automobiles cause 20 percent of carbon dioxide at leads to global warming, and 40 thousand Americans die prematurely each year from soot in our air. That's their time line. And until you can find a way to extend their time line, you can't do it for the automobile and oil industries. You cannot give them more time to fix this. They need to do it is now and sooner because you can't extend

the time line for these kids. Thank you.

MS. OGE: Thank you. Mr. Morris.

MR. MORRIS: Good afternoon. My name is Keith Morris, and I'm a student presently working with the Sierra Club as a field manager. I spend every weekday going door-to-door talking about environmental issues. I can say the overwhelming majority I speak with express serious concern for the quality of our air. However, many don't understand the impact of our driving habits and inefficient unclean motor vehicles. Instead of working towards clean and efficient cars and trucks, oil companies and manufacturers are spending tremendous amounts of time and money to confuse the issue and to continue their exploitation of the public and abuse of the planet as a whole. Today and yesterday we stand witness to this expensive campaign; traveling expenses, executives, slides and charts. If we really share the same goals, it seems that this is an effort that could be directed toward meeting or exceeding the proposal instead of fighting and complaining about a very crucial time line.

To me, the Automobile Manufacturers

Alliance appearance is a cooperative effort to withhold progress for the sake of profits with total disregard for public health and opinion. I challenge manufacturers who are not part of the Alliance to fully accept to existing terms or stronger ones. I know they would receive my support, and hopefully that of the American public.

The oil refinery is the main obstacle to the real aims of this proposal. Frankly, the transportation industry should lay oil companies to rest where we all know they belong by now. I challenge manufacturers to begin manufacturing an affordable electrical or other forms of transportation immediately and challenge the public to demand them.

I commend the EPA's landmark standards. We need the strongest possible regulation as soon as possible. Perhaps we are finally nearing the extinction of this hungry and dangerous dinosaur known as the internal combustion engine. Thank you.

MS. OGE: Ms. Stacy Long.

MS. LONG: My name is Stacy Long from Pittsburgh Penn PIRG. I have canvasses with Sierra Club and just yesterday I was with the Clean Air

Campaign. I find it very, very amusing that as soon as we arrive, the entire auto industry seem to have left.

MS. OGE: But we are here.

MS. LONG: It's a shame, because I wanted to address specifically Ford's representative, I believe, Kelly Brown, and I don't think she's in the room.

MS. OGE: He's a male.

MS. LONG: I'm sorry.

MS. OGE: I called him Mr. Ford yesterday. I don't want to change his sex.

(Laughter.)

MS. MARTIN: We have some automotive people here. Reg is here. We have a couple of people.

MS. LONG: I wanted to address Ford because actually the other day my boyfriend and I were looking over a magazine and we found a very interesting ad for the Ford -- not the Explorer, it was the Lincoln Navigator. It said, "We now produce less pollution than the average car." Now according to our research, the average car produced .4 grams of nitrous oxide; the average SUV, 1.11. So we

thought, let's call the number they gave us, let's call, let's see exactly what the numbers are. I called the number that was listed. Nobody had any idea what I was talking about. They tried to refer me to a dealer in my area. They never -- "Nitrous oxide? What are you talking about," they said. "Who are you? Where are you from?" So they referred me to corporate, the top dogs, and they also had absolutely no clue what I was talking about.

Now, my question is, how can they make claims like this, and then when you actually investigate to see if that's true, they have no idea what you're talking about? I don't understand that.

I personally am very upset about a lot of things. I'm upset we have to have these hearings. This shouldn't have to happen. We know people are dying. We know people are in the hospital. This shouldn't have to happen. They should lobby politicians. They shouldn't beg for time. The industry -- the economy is booming. These guys are not in any financial difficulty. We don't need to give them more time. We don't need to do anything for them. They need to do for us

because our kids are suffering. This affects every one of us.

I go door-to-door every day. Every day lately the past five days have been high ozone days because of this very problem. So I get to walk around in 95 plus heat and get sweaty and filthy from the pollution and I talk to people and they're worried.

Yesterday I was in a very poor neighborhood. These people gave me more than $15 a piece; that is what they gave me. I had eight new names and many contributors although they are at or below the poverty level.

And I'm sorry, we don't six figures. Most of these people do, if not more. We don't have the money to fight this. But hopefully it, seems we have your understanding on our side. You have proposed new laws and regulations. I really hope you will at least enforce them. I want you to go the extra mile and do it all. This is not acceptable. People are dying because people don't want -- the big auto industries have more money than I can count. They don't need more time. This is a public health hazard. I don't think it's necessary.

Shawn Somerville - Penn PIRG

I had notes, but I don't know -- but another point, these executives, maybe if their children have asthma, maybe they can afford to hospitalize them and get really good care. Most Americans can't, most Americans can't speak up for themselves. So basically we're trying to say stop the corruption. This is ridiculous. We don't need to put up with this anymore. We are human. Because if they die of asthma -- never mind. You know what I'm talking about. I'm very upset.

I really, really urge you to adopt this proposal and go further, adopt stronger ones. Thank you.

MS. OGE: Thank you. Mr. Shawn Somerville.

MR. SOMERVILLE: I also work with the Pittsburgh PIRG. I'm originally from Houston which has an air pollution problem. With millions of cars on the road belching out pollutants, we had HOV lanes, we tried bus lines, we tried to get people to car pool together. It doesn't work. People love their cars and they're always going to be driving them. That's why we have to have less pollution from the cars. It's not going to come from city or

local government. It has to come from the top, from the EPA.

When I'm in Pittsburgh -- I'm a student. I use a bicycle for transportation. I'm actually a pretty healthy guy. But when I'm riding my bike through town, I have to stop a lot of times, not because I'm tired, but because my lungs give out; I can't stand what I'm breathing. Maybe the person that's driving in their huge SUV, in their insulated air-conditioned vehicle doesn't quite get the same effect from the smog as I do.

Actually, yesterday as I was walking around Philadelphia after going door-to-door with this issue, I was next to, I guess, 476. I started getting sick. I don't have asthma, but I was coughing for nearly an hour. I felt nauseous just from the pollution in the area.

People are really concerned about this. But they bring up a number of strange points; well, what does it matter? Third world countries pollute more than we do. They have to clean up their act.

I'm sorry, we're not a third world country. We should hold ourselves to the highest standard. We're the wealthiest, technologically

advanced nation in the world. Why is the air quality so poor? Why can't the auto industry -- actually, as the gentleman from DaimlerChrysler expressed, they can meet the standards and actually exceed them. We can't wait for them to do it on their own. We can't wait for the auto industry and the fuel industry. No, the parent organization are the people who make the rules. EPA has to step in and enforce strict guidelines.

I'd like to thank you for having us.

MS. OGE: Thank you. Rachel Maden.

MS. MADEN: My name is Rachel Maden. I live in New Brunswick, New Jersey. And while these hearings are being held in Philadelphia, I can tell you firsthand that air pollutions is not limited to Philadelphia. New Jersey is not the butt of the nation for no good reason. Every day millions of cars, minivans, SUVs and trucks travel our highways. The exhaust of those vehicles release smog-forming nitrogen oxide. The smog is dangerous for everyone, but especially children, the elderly, and those with respiratory illness.

So I am here today with a question for you. Why is it that America is a leader in

business, a leader in technology, a leader in creativity, but not a leader in protecting the health of the very people who have made our country what it is today?

I applaud the effort of the EPA. I think it is an excellent first step. However, I believe it is only a first step. I believe this effort is not enough. Passenger vehicles, including SUVs and minivans, should be subject to the same standards as cars. There should be no exceptions for super-sized SUVs. All of these vehicles are family vehicles. And at a time when it seems like all people in America can talk about our family values, I think to myself, shouldn't one of these values be protecting the health of those very families? We need the strongest possible regulations to control auto pollution here in the leader of the countries in the world.

I thank you for your time and I applaud your efforts and hope you will take them to the next necessary step.

MS. OGE: Thank you. J. Astra Rooney.

MS. ROONEY: I'm from the Princeton Office in New Jersey. We walk around and talk about

environmental consumer interests every day. The State of New Jersey, like it's been pointed out, one out of three days it's unhealthy to breathe air. The Department of Environmental Protection actually has a hotline that you can call up and they'll tell you when you can breathe the air outside. This is not a solution. The solution to these problems is tougher emissions standards for all vehicles.

I do walk around. The beginning of this week were very hot days where we were in high ozone but we were still outside talking to people. I was out walking around on those 2 days. Yesterday I came to Philly. Yesterday morning at this hearing, I had my voice. I walked, canvassed yesterday afternoon, and now I can barely speak. This makes my job a lot harder. I believe that it's a direct link to the air quality in the area. And I think that's very simple and simply put. I don't have asthma. I don't have a history of respiratory problems, but today this is what my voice sounds like. Like I said, it was perfectly fine yesterday morning.

I applaud this first step in making the effort by the EPA to improve standards. I believe

that we should be looking at solutions to the problem that we face, and that does mean tougher emissions standards and looking at standard fuel efficient engines and fuel so we don't have to rely so heavily on the oil and gas industry. So I thank you very much for your time and I applaud your efforts.

MS. OGE: Thank you. Ms. Cory Holding.

MS. HOLDING: My message is pretty simple, too. Basically having been a part of these hearings for the last couple days and having heard both sides and thought about both sides, I am still definitely an advocate for clean air as soon as possible. It seems to me like a sort of simple case for you all for mostly four basic reasons. One, the technology does exist as was explained to us by panel members like Mr. Bertelsen and Mr. Modlin also. Number 2, the capital and manpower also exists which we can, I feel, assume based on the wealth and size of the auto industry. Third, there is a physical need for change which has been explained, pleaded over and over and over by the people and by panel members like Dr. Thurston who just spoke. And fourth, there is certainly a strong

public demand which has been certainly shown to you all by groups like the Public Interest Research Group and the Sierra Club, the Clean Air Council and many other groups that have been here.

It seems to me that basically it's a matter of priority. Which do you prefer to kind of appease, the automobile gurus, so to speak, or the people who really need this right now? I implore you to hear the people. And I thank you so much for coming out and listening. And I thank you guys for sticking around to hear us. We really appreciate it.

MS. OGE: Well, for Stacy Long, I'll be more than glad give you Kenny Brown's phone number, and I'll ask him first if I can do that. But I think he would be very glad to share with you about the their vehicles. This is public information. I can give you that information so you can call me afterwards.

But seriously, I want to thank you for coming and meeting with us and sharing your experience, walking on the streets and sharing what you're hearing from the public and what you are feeling. And I want to commend your interest in the

issue. Thank you very much.

I understand that we may have additional people that would like to speak.

MR. RASH: I'll be brief. I am here representing the board of directors of the Greater Philadelphia Clean City Program which is an program dedicated to the use of alternative fuels and alternative fuel vehicles in the Greater Philadelphia region. The Clean City Program was established in 1993 and is widely recognized as one of the successful United States Department of Energy clean cities programs in the country. Thanks to the efforts of its members, local governments, companies, and consumers in the Greater Philadelphia area want vans, trucks, cars, and buses on alternative fuel such as compressed natural gas, propane, ethanol, methanol, and electricity, the results being improved air quality and a reduction of reliance on foreign oil.

While the Greater Philadelphia Clean City sees EPA Tier 2 proposal for emissions as a positive step, it calls for EPA to give increase attention to alternative fuels and give as much attention to them as tailpipe emissions. The

reasons are simple. Transportation revolves around motor vehicles that run on gasoline and diesel made in catalytic converter technologies and will continue to contribute to the ground level ozone problem well into the next century. Each year there are more vehicles on the road driving more miles than the year before. Furthermore, the world oil supply is not limitless and the source of great political instability witnessed by the OPEC crisis in the seventies and the Gulf War. As a result, the United States is forced to spend billions of dollars each year importing half of its oil from politically unstable regions of the world. The public health and ground ozone and the increasing reliance on foreign oil seriously threats to our nation's future. That is why the Greater Philadelphia Clean Cities Program is calling for its increased presence in the alternative fuel arena.

Alternative fuel might correct a pollution problem in conventional automobiles. Some even have zero emissions. Compressed natural gas, electricity, and ethanol are in great abundance here in the United States. Its shift will not take plays overnight, but it is imperative that it occur.

There is a willingness to have vehicles, but its growth is continuing, and we better start working with other global agencies and private industry to improve all fuel and vehicle development. Thank you.

MS. OGE: Thank you. Any other individuals who would like to speak?

Thank you very much. We will break for lunch and convene at 2:30 for additional organizations and individuals to testify.

(Luncheon recess taken at 12:45 pm.)

(Court reporter excused.)

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William Menz, CT DEP

MS. MARTIN: Bill Menz from the Connecticut Department of Environmental Protection. Please go ahead, right ahead straight to the table. Irwin Berlin, Stacey Young, Olivia Conroy, and Elissa Underwood.

MS. OGE: Good afternoon. I would like to welcome you to the panel. Since I would suspect many of you or any of you were not here this morning, I would just like to give you some guidance as to how we are going to do this meeting.

Write your names, and if you are with an organization, please indicate that on the card in front of you. We are going to give you ten minutes to make your oral presentations, and then the panel members may have questions of you. If not, we will ask the next group of people to come forward.

We will start with Mr. Bill Menz.

MR. MENZ: Menz.

MS. OGE: Menz.

MR. MENZ: My name the Bill Menz. I am an air pollution control engineer representative of the State of Connecticut Department of Environmental Protection Bureau Air Management. The State of Connecticut is pleased to offer these comments on

William Menz, CT DEP

EPA's Tier 2 motor vehicle standard low-sulfur gasoline proposed rule.

The State of Connecticut strongly supports the proposed rule as the critical components of the Northeast state's strategy to achieve and maintain the national ambient air quality standards for the one-hour ground level ozone and fine particulates and to improve the public health by reducing air toxics.

We applaud EPA's efforts in developing the proposed rule but have specific concerns as indicated below. But we encourage the EPA to consider in promulgating the requirements of the final rule.

In particular Connecticut strongly supports the following provisions of the Tier 2 low-sulfur gasoline proposed rule:

The single average exhaust emission standard for both passenger cars and all light-duty trucks up to 8500 pounds;

The choice of NOx as the pollutant for the average exhaust emission standard;

A NOx fleet average exhaust emission standard as comparable to the NOx standard for LEV

and ULEV vehicles in the California LEV II rule;

Lengthening the useful life of motor vehicle emission standards to 120,000 miles;

The inclusion of new standards for the supplemental federal test procedure;

A fuel neutral emission standard;

A single set of NOx fleet average standards for cars and light trucks used for passenger applications;

A reduction in gasoline sulfur levels to the 30 parts per million with an 80 parts per million cap;

A credit program to provide incentives for refiners to reduce sulfur levels in gasoline prior to the effective date of the final ruling;

A national rather than a regional gasoline sulfur standard.

A national gasoline sulfur standard allows EPA to establish one real world federal test fuel for motor vehicles and protects catalysts in vehicles driven from a low-sulfur gasoline region to high sulfur gasoline region from damage by the temporary use of sulfur gasoline.

The State of Connecticut has three

significant concerns with the proposed rule and makes the final recommendations with respect to the final rule.

First, EPA failed to adequately justify the proposed rule in relation to the one-hour standard relying rather on the need for states to meet the eight-hour ozone standard. Connecticut needs the emission benefits the proposed rule would provide in order to help solve our one-hour ozone problem.

For example, during the ten-day period beginning on May 29th, 1999 and ending just this past Monday, exceedences of the eight-hour ozone standard have been recorded on seven days and perhaps more significant exceedences of the one-hour standard have been recorded on three days at monitoring sites in Connecticut.

By the way, this past Tuesday we reported our eighth exceedence of the eight-hour ozone standard.

The effect of the recent decision by the Court of Appeals for the District of Columbia which found new air quality standards unenforceable including the eight-hour standard is yet to be fully

determined. In view of this, we recommend the EPA include a significant justification for the proposed rule based on the one-hour standard alone.

Second, with fuel cells and other emerging technology on the horizon which may require low levels of sulfur in gasoline, we recommend that EPA continue to examine the benefits and practicality of achieving even lower sulfur levels than those proposed.

Third, we recommend EPA conform the requirements of the final rule to the California LEV II program in terms of emission reductions and air quality benefits. The Northeast states require a comprehensive examination of the emission benefits from LEV II and the Tier 2 low-sulfur gasoline proposal rule in order to make an informed choice from among the two programs.

Thus far, comparisons have been superficial and difficult to make given the lack of the MOBILE6 and other appropriate tools.

We recommend that EPA conduct a comprehensive, in-depth comparison of the LEV II and the proposed rule.

Under Section 177 of the Clean Air Act,

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States have the option of adopting the California LEV II program.

If such a comparison does not demonstrate the proposed Tier 2 low-suffer gasoline program is substantially equivalent to the LEV II program, many states may find it necessary to implement the LEV II program.

In conclusion, we support EPA's proposed rules as an effective way to reduce air pollution for cars and trucks in the future. We recommend that EPA make the following improvements in the final rule: A justification based on a one-hour ozone standard; the potential for the lower sulfur levels in near term; and a comprehensive comparison with the California LEV II program.

Thank you for giving us this opportunity to comment.

MS. OGE: Thank you.

Mr. Irwin Berlin.

MR. BERLIN: My name is Dr. Berlin, and I am chief of pulmonary medicine at St. Elizabeth Hospital in Elizabeth, New Jersey, and I am on the National Council of American Lung Association, and I am a board member of the New Jersey American Lung

Irwin Berlin, M.D., ALA Association.

It is the American Lung Association's position that sport-utility vehicles must meet the new auto emission standards within three years, not as EPA proposes in the ten years.

Sport-utility vehicles grew three times as much as the standard car, they use much more gasoline, and since they are larger and heavier than most standard cars, they can cause a great deal of damage in an accident with smaller vehicles.

I want to remind the EPA and give them a little bit of an overview about air pollution. Air pollution has had adverse effects on health throughout history starting at the time we invented fire for heating and cooking with exposure to smoke. And rise of cities concentrated those emissions of pollutants from dwellings and from manufacturing facilities within restricted locales.

During the 20th Century, mobile sources, including cars, trucks and other possible fuel-powered vehicles, created a new type of pollution, photochemical pollution, or smog, first recognized in the LA air basin.

The unprecedented growth of some urban

areas, what we now call megacities, such as Mexico City, Sao Paulo and Shanghai has led to unrelenting air pollution from massive vehicle fleets and snarled traffic and from polluting industries and power plants.

Health effects on air pollution have long been of concern. During the reign of King Edward I in 1272 in London, the pollution by coal smoke prompted a royal proclamation banning a burning of sea-coal in open furnaces.

But air pollution was not regulated in England until two centuries later with the passage of The Smoke Nuisance Abatement Act.

In the United States, recognition of the public health dimensions of air pollution just began in the middle of the 20th Century, driven by rising problems of smog in Southern California and the 1948 air pollution episode in Donora, Pennsylvania, which caused 20 excess deaths and thousands of illnesses.

This modern era of air pollution research and control dates to the episodes in Donora and other cities during which extremely high levels of pollution caused clearly evident excess deaths.

These episodes led to regulations for

the control of outdoor air pollution and to the conduct of research designed to develop evidence on the health effects of outdoor air pollution as a foundation for control measures.

The research includes: Characterization of the pollutants in outdoor air as to their sources, concentrations, chemical and physical properties;

Toxicologic investigation on the injury caused by air pollution;

And the underlying mechanism, epidemiologic survey's top health effects of air pollution in the community.

These approaches remain fundamental to research on air pollution today.

Atmospheric pollutants, whether they are indoors or outdoors, exist in both gaseous and particulate forms. In evaluating clinical consequences of specific exposures, the clinician has to recognize that penetration into and retention within the respiratory tract of toxic gases varies widely depending on the physical property of the gas and solubility, concentration of the gas in the inspired air, the rate and depth of ventilation, and

the extent to which the material is reactive.

The spectrum of adverse effects of air pollution is broad, ranging from consequences of acute and very dramatic exposures, which can lead to death, to far more subtle and chronic effects on disease, risk and well-being.

Perhaps the most common adverse effect is a loss of sense of well-being from the diminished aesthetic value of a polluted environment. Clinicians are more likely to be concerned with the less common, more acute effects with clinical consequences-acute responses, often in asthmatics, for which a link to air pollution exposure, may be made by history or challenge testing. The more subtle and long-term consequences are typically a focus for public health researchers and regulators.

To interpret the scientific evidence on the effects of air pollution, clinicians need a framework to determine whether an effect is adverse. Judgment on the adversity of response is societal and reflective of prevalent valuations and perceptions of risk. The Clean Air Act, it uses the term "adverse" without a definition.

In a 1985 report, the Committee of the

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American Thoracic Society offered guidelines for defining adverse respiratory health effects in epidemiologic studies in outdoor air pollution.

The Committee turned to a medical basis for this determination of finding adverse respiratory health effects as medically significant, physiological or pathological changes.

So what are these effects on the health of particulate and increased ozone air pollution? Increase in daily mortality; increase in total deaths; increase in respiratory deaths; increase in cardiovascular deaths; increase in hospital usage, specifically ER admissions, admissions to the hospital; exacerbation of asthma; asthmatic attacks; increase in the use of bronchodilators; increase in respiratory symptom reports in the lower respiratory tract, the upper respiratory tract; and the increased incidence of cough; and specifically, decrease in lung function; decrease in FEV 1; decrease in peak expiratory flow.

So who are the populations that we are talking about who are at risk? Certainly you and I are all at risk, but there are some people who are obviously more susceptible:

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The asthmatic has a potential mechanism for increased airway responsiveness with increased risk for exacerbation and respiratory symptoms;

Cigarette smokers have impaired defects, and they are at increased damage through synergists;

The elderly have impaired respiratory defenses with reduced functional reserves. And they are at increased risk for respiratory infection and increased risk for clinically significant effects on function. We now know that seniors also face asthma as a separate specific illness. Asthma does occur in the elderly.

Infants and children obviously also have immature defense mechanisms of the lung, and they are at increased risk.

Persons with coronary heart disease have impaired myocardial oxygenation, and they are at increased risk for myocardial ischemia.

And persons with COPD have reduced levels of lung function, and they are at increased risk for significant -- clinically significant effects on function.

The American Lung Association of New Jersey, as one of its prime focuses on outdoor air

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pollution, our goal is to prevent and control outdoor air pollution.

Over 7.8 million people live in New Jersey and are exposed to unhealthy levels of air pollution, including 4.6 million Jerseyites who are particularly at risk from the health effects of air pollution.

Asthma rates have been increasing with current prevalence of approximately 540,000 persons in New Jersey, and 150,000 children in New Jersey.

It has been shown in my hospital and other hospitals in New Jersey that there are increased levels of ozone in the air which resulted in increased episodes of asthma and increased visits to the emergency room and increased visits in hospitalizations.

Nationwide approximately 60,000 premature deaths and 2,000 excess cancer death cases are estimated to be caused by outdoor air pollution. The direct and indirect health and productivity costs of outdoor air pollution are estimated to be $50 billion each year.

The Lung Association, I remind the EPA, should be a key source of expert information on the

sources, health effects and control of outdoor pollution. And we are instrumental in influencing the adoption and implementation of effective state and local air pollution control legislation and regulations.

In New Jersey, when we look at in 1995, 1996 and 1997, the number of high ozone days in the unhealthy range, despite the best effort, certainly in my county of Union County that has 500,000 people, 98,000 children under the age of 14, 76,000 people over the age of 65. We've had increasing numbers of unhealthy high ozone days as recently as last week.

American voters strongly favor requiring car companies to make sport-utility vehicles and minivans meet strict air pollution standards. Nearly nine out of ten owners agreed that car companies should be required to make these vehicles meet the same strict air pollution standards as passenger cars.

The survey also revealed that the voters overwhelmingly support cleaner gasoline nationwide. A vast majority of voters also are willing to pay up to 2 cents more per gallon of cleaner gasoline that

the United States and Environmental Protection Agency estimates it will cost.

The survey results were released as you began your -- conducting your public hearing on new clean gasoline and clean air standards.

According to the president of the American Lung Association, Ernest Frank, American voters --

MS. OGE: Excuse me, Dr. Berlin, I would like you to conclude your remarks.

MR. BERLIN: Yes. Two more minutes.

MS. OGE: I didn't indicate to you that there is an important person sitting in front of you, John Guy. And he has cards showing the time that is left for each one of you. So please go to your remarks.

MR. BERLIN: Thank you.

The public is demanding that the EPA close the loophole that allows SUVs to pollute more. The auto industry is pushing to continue special SUV loopholes to avoid or postpone air pollution clean-up.

Much of the oil industry opposes strong national clean gasoline standards and

Stacey Young for Peter Kostmeyer wants to allow dirtier, higher sulfur gasoline. We have already experienced smog problems this summer.

In conclusion, there should be no special treatments for heavier vehicles; there should be no special treatment of diesel technologies; sulfur levels in gasoline should be lowered to 30 parts per million; there should be increased incentives for advanced technology vehicles.

Thank you.

MS. OGE: Thank you.

Ms. Stacey Young.

MS. YOUNG: Hi.

MS. OGE: Hi. Good afternoon.

MS. YOUNG: My name is Stacey Young. I am here representing Former-Congressman Peter Kostmeyer.

Peter served as EPA's regional administrator for the Middle Atlantic states and served as the executive director of the nonprofit environmental organization Zero Population Growth. Peter Kostmeyer is a U.S. Senate candidate challenging the Pennsylvania State

Stacey Young for Peter Kostmeyer senate seat currently held by Rick Santorum.

Today, as much of the nation experiences the beginning of 1999 smog season, we have a great opportunity to curb pollution from a much larger source, the automobile. This should be among our nation's highest priorities.

Air pollution threatens the health of at least 117 million Americans who live where smog levels are a frequent health threat. Those who are among the most vulnerable to the health impact of air pollution? Children and people with asthma.

There are over 15 million Americans with asthma, 5 million of whom are children. We must establish pollution controls that protect these vulnerable populations from smog.

Although we do have cleaner cars today than two decades ago, automobile air pollution is on the rise. This is because people drive more than ever and are choosing larger, more polluting vehicles. Therefore, we must insist upon advances in automobile pollution control technology in order to keep pace with the trends toward more driving and larger vehicles.

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Stacey Young for Peter Kostmeyer

As "The New York Times" pointed out, the popularity of SUVs could obliterate recent improvements in air quality. The EPA's Tier 2 and gasoline sulfur proposal should be applauded, because it is a strong program that will lead to dramatically cleaner cars.

Specifically I agree with EPA that new cars should pollute 90 percent less than today's cars and a nationwide clean gasoline standard is necessary to ensure that vehicle pollution controls remain effective over the lifetime of the car and the popular sport-utility vehicle should be included in the program.

However, the EPA should strengthen its standards in several important ways: Number one, no special treatment should be given to bigger, dirtier SUVs. EPA's proposal as written will not require the clean-up of the largest and dirtiest sport-utility vehicles on the market and give some SUVs until 2009 before standards applied.

This loophole creates clear incentive for automobile manufacturers to aggressively make and market ever-larger and more polluting SUVs.

Stacey Young for Peter Kostmeyer

All cars and SUVs should meet the same pollution standards at the same time.

Number two, no special treatment should be given to diesel vehicles. Automobile makers are aggressively moving toward diesel engines in the largest passenger vehicles. EPA's proposal leaves the door open for higher polluting diesel trucks to be sold indefinitely.

Number three, clean gasoline should be given -- should be available earlier. Under EPA's proposal, high sulfur gasoline will be on the market in significant quantities as late as 2006.

In 2004 when clean cars begin to come off the assembly lines, clean gasoline should be required nationwide to prevent measurable damage to the car's pollution control equipment.

I am convinced that higher standards are just as good for our economy as they are for the environment.

The United States can and will continue to have the most prosperous economy in the world if we rise to the challenge by leading the way in creating cleaner, safer and more

Olivia Conroy for Ann Geoke
efficient technology.
Again, thank you for the opportunity to speak.
The EPA should be credited for proposing stringent standards for cars, and I urge the adoption of this program with the noted strengthening amendments.
Thank you.
MS. OGE: Thank you.
Ms. Olivia Conroy.
Good afternoon.
MS. CONROY: Hello. My name is Olivia Conroy, and I am speaking today on behalf of Ann Geoke. She is the coordinator for Lancaster Greens.
We are writing to voice our support for cleaner air and the EPA's Tier 2 proposal to cut auto pollution. We are very concerned about the health impacts that air pollution has already had on our health.
We know that in Lancaster County there has been an incredible increase of breathing problems like asthma especially with our children.

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Olivia Conroy for Ann Geoke

We have been advocating in our community for everyone to take serious notice of this increasing polluted air that we are exposed to daily.

The warnings for dangerous bad air days have now started during spring rather than only during summertime. This means there has been a tremendous increase during these past few years.

This proposal will be a big step in the right direction, but we request that three things must be improved before you rule it as final:

First, all passenger vehicles, including minivans and SUVs, should meet the same standards at the same time. Larger SUVs should not be given extra time to clean up;

Second, there should be no special breaks for dirty diesel vehicles;

And finally, the EPA should do more to get advanced technology vehicles on the road.

We urge you to create a strong regulation to control auto pollution and help clean our air. If we begin to reverse this

Elissa Underwood for Jerome Butler
destructive trend, we will not only help the people who are now suffering from asthma due to polluted air, but in the long run you will save lots of unnecessary money to be spent due to an unhealthy community.

We have a membership of 85 people, and we firmly believe that we have a right to clean air and urge our government to protect this right.

Thank you.

MS. OGE: Thank you.

Elissa Underwood.

MS. UNDERWOOD: I am speaking on behalf of Jerome Butler, director of the Environmental Law Project at the Public Interest Law Center of Philadelphia.

I want to support EPA's Tier 2 proposal for the control of emissions of automobiles, sport-utility vehicles and light-duty trucks.

The EPA proposal developed after years of study is a compromise between components of more stringent standards to improve the human and ecological environments and performance will

allow us to degrade our environment in their mistaken belief that such degradations will improve their bottom-line profits.

Industry, in opposing Tier 2, is acting in its traditional manner when in the 1970s and 1980s EPA implemented the first auto emission inspection and maintenance regulations. Industry forecasted that the sky would fall; the sky didn't fall but industry now repeats the same theme song.

The EPA's Tier 2 is not a radical proposal. It is designed merely to maintain the present quality of our air environment; that is the least the nation should expect of the EPA.

Thank you.

MS. OGE: Thank you.

Any questions?

Thank you very much. Thank you for taking the time to come and share your views with us.

Mr. Keith McKay, Mr. Andrew Altman, Mr. Jonathan Sinker, Ms. Britta Ipri, Ms. Heather Cornell, Mr. Peter Michele.

Place print your names and your

Keith McKay for Richard Levine, M.D. affiliation of the organization that you are with, also. And I would like to remind you to please keep your remarks to ten minutes or less. John is helping you out with that. Now we have a sign giving you a warning at one minute and then no time left.

We will start with Mr. Keith McKay.

MR. McKAY: Good afternoon.

MS. OGE: Good afternoon.

MR. McKAY: I am actually testifying on behalf of Richard Levine, who is a family practitioner for Tatem Brown Family Practice Center.

MS. OGE: Would you please speak closer to the mike, if you can?

MR. McKAY: What may seem like common sense today was often met with criticism during the last three decades; for example, who in their right mind would allow a child to ride a bicycle without a helmet, yet when we were growing up nobody wore helmets.

Seat belts were often disconnected so the annoying buzzer wouldn't sound, allowing people to drive without being restrained, without

a seat belt. How long did it take for seat belts to become the rule rather than the exception?

The more modern example is the use of the air bag. General Motors introduced air bags in the 1970s but they did not become popular until the mid 1980s, until it was sued by a car-accident victim because the Ford she was driving did not have an air bag yet. It was common knowledge at the time that air bags protected occupants better than seat belts alone.

Obviously the public has been clamoring for increased safety in vehicles for many years but is only now beginning to see the impact of vehicles on the environment.

As a family physician I have witnessed firsthand the effects of pollution on human beings. More and more children are being diagnosed with asthma and the symptoms are increasingly difficult to control.

Although difficult to prove, it has been postulated by leading researchers in pulmonary medicine that the rise in asthma rates since the early 1980s is directly related to the amounts of ozone in the environment.

Keith McKay for Richard Levine, M.D.

Not only are children at risk, but also the elderly and persons with pulmonary problems.

Just today a 23-year-old patient of mine is having difficulty breathing because of the excessive heat and ozone triggered by her asthma. Why treat asthma with medications if we can prevent it from occurring in the first place?

On days when air pollution is at its worst, my office is busier than usual with patients suffering from respiratory problems.

I support cleaner air and the EPA's Tier 2 proposal to cut auto pollution. There should not be the special treatment for trucks, minivans and SUVs. Now that these vehicles account for over half of Ford's and Chrysler's sales in the U.S., it is obvious that these vehicles should be viewed in the same light as passenger cars.

Car manufacturers have the technology now to cut emissions, so why allow them ten years to phase in stricter tailpipe emissions?

Ten years from now, it will seem like

common sense that the government should have treated trucks just like passenger cars in our duty to clean our air.

Aren't our children worth it?

Thank you.

MS. OGE: Dr. McKay, thank you.

Mr. Andrew Altman.

MR. ALTMAN: Good afternoon. My name is Andrew Altman. I am deputy director of Clean Air Council. Clean Air Council is Pennsylvania's leading environmental advocacy organization working on air issues. The Council has offices in Philadelphia and Harrisburg, and the Council has been working for the last 32 years to protect everyone's right to breathe clean air.

The Council is perhaps best known for its willingness to sue the U.S. EPA and Commonwealth of Pennsylvania when they do not properly implement the Clean Air Act.

Air pollution is dangerous for all of us. It is even a more serious problem for children, the elderly and people with preexisting respiratory diseases. The group health professionals are most concerned about are

Andrew Altman, Clean Air Council

children with asthma. Asthma rates among children are up 75 percent since 1980 with 4.6 million children suffering from asthma.

In 1998, Pennsylvania had 616 recorded exceedences of the eight-hour health standard. Most Pennsylvanians are still regularly exposed to unhealthful levels of ozone. In the Philadelphia Area, Montgomery County exceeded the eight-hour standard on 19 different occasions in 1998. Bucks County had 14, Philadelphia County 27 and Delaware County had 19. Pittsburgh had a record of 33 exceedences.

During the summer of 1998, 27 Pennsylvania counties exceeded the eight-hour standard, and 31 other states and the District of Columbia have similarly severe ozone exceedences.

The same anti-environmental forces that are delaying the implementation of the revised eight-hour ozone standard and new fine particulate standard, both health-based, are now in front of the EPA trying to delay these mobile source emission proposals.

Andrew Altman, Clean Air Council

And the Air Council calls on EPA today to close the loophole for SUVs and other light trucks, set national standards for low-sulfur gasoline, and require the engines of all passenger cars, whether diesel- or gasoline-powered to meet the same low emissions standards.

Support for Tier 2: There can be no doubt about the public health need for cleaner motor vehicles.

Americans now drive 2.5 trillion miles per year, more than doubling 1970 levels. Cars and light trucks spew out more than 30 percent of the smog throwing oxides of nitrogen that fouls the air in the Philadelphia area.

Improvements in the emissions for new passenger vehicles are being offset by the dramatic trends in purchases of SUVs. Sales of these vehicles are now equal to the sales of the traditional passenger vehicles.

According to the survey done by the American Lung Association, America strongly favors uniform national clean gasoline standards and are even willing to pay more for cleaner gasoline if it will result in clean air --

Andrew Altman, Clean Air Council

cleaner air.

Significant advances have been made in vehicle emissions and control technology. These advances are continuing. The advanced technologies on the market today are the result of the technology-forcing nature of the low emission vehicle programs.

EPA must strengthen and simplify the national low emission program to guarantee emission reductions. EPA has chosen to follow the California model in allowing emission goals to be calculated on a per company average rather than a per vehicle average or basis.

The Council believes that the California approach may not be translated to a much larger national program with integrity. The section of the proposal rule which adds extra emission bins and vehicle categories extends deadlines for full compliance.

In particular, the proposal to allow higher emissions and later deadlines for heavier light-duty trucks makes the proposed system vulnerable to fraud and delay.

The Council makes the following

Andrew Altman, Clean Air Council

recommendations: EPA should substantially shorten the compliance schedule of the heavier SUVs to 2005;

EPA should eliminate extra provisions that provide for an allowable higher emission level for heavy vehicles;

EPA should not include a formal technology review of the Tier 2 standards;

EPA as it monitors the Tier 2 implementation can adjust the program. It is unnecessary and unwise for the formal review provision to be included in the final rule;

EPA should delete from the average banking and trading portion of the proposed rule any ability of an automobile manufacturer to address violations of emission unit also by borrowing emission reduction credits from the next model year.

The program will be meaningful only if participants are required to meet targets on time.

At yesterday's hearing Mr. German from Honda Motor Company expressed why the Council supports the adoption of the National Low

Andrew Altman, Clean Air Council
Sulfur in -- Low Sulfur in Fuel Program.

He stated sulfur -- I quote from him: "Sulfur is a catalyst poison which has many detrimental effects. It is a barrier to reaching low emission levels; it is a barrier to the introduction of new technologies."

Unless EPA is willing to be aggressive in its implementation of the national low sulfur fuel program, automobile manufacturers will be delayed in implementing significant reductions in vehicle emission controls.

Honda then goes on to conclude that the Tier 2 standards proposed by EPA are technically feasible.

The Clean Air Council believes that EPA is wrong and that its proposal does not deliver cleaner gasoline at that time, the same time that the new technology vehicles are required under NLEV and Tier 2 to become available to consumers.

The Council makes the following recommendations:

EPA should phase in more quickly its caps for sulfur and fuel;

Jonathan Sinker, National Environmental Trust
EPA must tighten its trading rules in order to prevent pockets of high sulfur gasoline;
EPA should reject the suggestion by some interested parties to adopt a more regional approach to sulfur in fuel. Sulfur is poison to a car's pollution control equipment, wherever that car may be driven.
On diesel, Americans overwhelmingly believe that the diesel fuel vehicles should have the same or equivalent strict emission standards as gasoline vehicles. Every vehicle designed primarily for passenger use should meet the same pollution control standards regardless of the chosen fuel vehicle weight or engine type.
In conclusion, Clean Air Council reserves the right to submit more detailed testimony in writing before the close of the comment period. Any questions to this testimony should be addressed to Joseph Minott, our executive director.
Thank you very much.
MS. OGE: Thank you.
Mr. Jonathan Sinker.
MR. SINKER: My name is Jonathan

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Jonathan Sinker, National Environmental Trust Sinker. I am the organizer for the National Environmental Trust in Pennsylvania and Delaware. The Environmental Trust is a nonprofit, nonpartisan organization dedicated to educating the American public on contemporary environmental issues.

Since it was founded in 1995 at the Environmental Information Center, NET has worked to promote strong health, safety and environmental protections on issues including food, air, drinking water, safety, local climate change, public right-to-know policies, and endangered species protection.

Clean Air Act mandates that EPA set national ambient air quality standards that will protect public health. There is no doubt that the air in Pennsylvania and Delaware is not protective of public health.

In 1998, Pennsylvania had 16 -- 616 readings where the eight-hour standard was exceeded. Most Pennsylvanians are still regularly exposed to unhealthful levels of ozone.

In the Philadelphia area, if you live in Montgomery County, the eight-hour standard was

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Jonathan Sinker, National Environmental Trust exceeded on 19 different occasions; 14 times in Bucks County; 27 times in Philadelphia County; and 19 times in Delaware County.

During the summer of 1998, 27 Pennsylvania counties exceeded the eight-hour standard. In Delaware the reading exceeded the eight-hour standard 88 times in 1998.

Air pollution is dangerous for all of us. It is an even more serious problem for children, the elderly and people with preexisting respiratory diseases. The group most health professionals are concerned about are children with asthma.

Asthma rates among children are up 75 percent since 1980 with 4.6 million children suffering from asthma. Ozone is responsible for up to 10 percent of all hospital admissions during the summer.

Ozone is a powerful lung irritant. It can inflame lungs and cause harmful changes in breathing problems. According to the American Lung Association, ozone pollution even at low levels has the ability to increase hospital admissions and emergency room visits and

Jonathan Sinker, National Environmental Trust respiratory problems.

Exposure to elevated levels of ozone is particularly a problem for children because the respiratory system is still being developed, and they breathe more air per pound for body weight than adults.

The United States is currently responsible for about 25 percent of the growth for global warming gases. The Tier 2 proposal will have the important benefit of lowering global warming gas emission.

NET joins the rest of the environmental community in supporting the EPA's Tier 2 low-sulfur gasoline proposal. The national environmental trust calls on EPA today to:

Number one, close the loophole for SUVs and other light trucks. The SUV emission loophole that allows such cars to pollute three to five times more than passenger cars needed to be addressed and it has been obvious for years. Yet only now is EPA proposing to act. And even now it acts in a way that will still exempt the largest SUVs, the worst polluters expeditiously

Jonathan Sinker, National Environmental Trust reducing their emissions.

Number two, set national standards for low-sulfur gasoline. Sulfur is poisonous for pollution control devices on cars. New tougher emission standards being proposed today cannot be achieved with dirty gasoline.

And number three, require the engines of all passenger cars whether diesel or gasoline-powered meet the same low emission standards.

Americans overwhelmingly believe that diesel fuel vehicles should have the same, equivalent, strict emission standards as gasoline vehicles.

Every vehicle designed primarily for passengers' use should meet the same pollution control standards regardless of the chosen fuel, vehicle weight or engine type. There can be no doubt about the public health need for cleaner motor vehicles.

NET reserves the right to submit additional written comments during the comment period. Thank you.

MS. OGE: Thank you. Ms. Britta

Britta Ipri, ALA of Maryland
Ipri? Is that how you pronounce your name?
MS. IPRI: Yep. You got it right on the first try.
My name is Britta Ipri speaking on behalf on the American Lung Association of Maryland.
The American Lung Association of Maryland applauds the efforts of the EPA to make our air safer to breathe by cutting pollution from automobiles. This comes at a time when asthma rates are on the rise and more people than ever before are vulnerable to severe health impacts of air pollution.
It is clearly evident our nation needs the strongest possible air regulation controlling our pollution from all major sources.
Right now Maryland has a very serious air pollution problem. Maryland alone had over 54 violations of the new eight-hour health standard for smog last summer. A report released in 1996 revealed that Baltimore, Maryland, ranked second only to Los Angeles in the number of respiratory-related hospital emissions and emergency room visits related to air quality.

Britta Ipri, ALA of Maryland

Children, the elderly and those with respiratory illnesses are most at risk. Asthma rates in children have increased 75 percent since 1980. Automobiles are the largest non-industrial source of smog-forming nitrogen oxides.

This proposal is a big step in the right direction, but there are a few things that should be improved before the rules become final.

First, there should be no special treatment for heavier vehicles. All passenger vehicles including minivans and SUVs should meet the same standards at the same time. Larger SUVs should not be given extra time to clean up.

Right now the proposal includes a separate schedule for these heavier vehicles. These vehicles will have more protection standards than any other vehicle class.

The industry has always responded with new technologies and products when standards are firm and deadlines are reasonable.

The ten-year phase-in schedule for heavier vehicles far exceeds any phase-in period for passenger vehicles ever proposed. This

Britta Ipri, ALA of Maryland schedule asks the victims of air pollution to once again wait for relief.

If anything, the time line should be shortened. In addition, this proposal does nothing to clean up super-sized SUVs such as the Ford Excursion. This could lead to increased sales and production of these overgrown passenger cars. Heavy-duty trucks should be required to clean up their emissions as well.

Second, there should not be any special treatment of diesel technologies. All vehicles, regardless of engine or fuel use should meet the same public health standards. There is no logical justification for special treatment for diesel technologies, yet the Tier 2 proposal has created two vehicle categories that would permanently allow diesel engines to pollute twice as much soot as gasoline engines and up to ten times as much smog-forming nitrogen oxide.

Given the toxic and likely carcinogenic nature of diesel exhausts, there should be no incentives to increase the amount of diesel vehicles on the road.

Third, the sulfur levels in gasoline

Britta Ipri, ALA of Maryland should be lowered to 30 parts per million. The current proposal will reduce sulfur content in gasoline but will allow an extended timetable for small refiners. Low-sulfur gasoline needs to be adopted nationally at the same time as the new emission standards.

By allowing some refiners to continue to produce dirty gasoline, there will be negative impacts on the pollution control technologies of newer and cleaner cars. We believe people are willing to pay the extra 1 to 2 cents per gallon that it will take to clean up sulfur levels if it will mean being able to breath cleaner air.

And, fourth, there should be no -- there should be increased incentives for advanced technology vehicles. The new standards do not provide sufficient incentives to spur the development of cleaner technologies such as battery electric and fuel-cell powered cars.

In other words, to move the market toward-future-advanced technology vehicles, EPA must do more to get more of these vehicles on the road.

The Tier 2 proposal is a strong start

to reducing air pollution; however, since this decision will affect our air quality for decades to come, we cannot afford to risk the public health by documenting a proposal that does not address the above-mentioned areas of concern.

We need the strongest possible regulations to control air pollution.

On behalf of the American Lung Association of Maryland, thank you again for your leadership on this issue.

MS. OGE: Thank you.

Ms. Heather Cornell.

MS. CORNELL: I am speaking today on behalf of Mr. Jeremy Focht. He is a research process engineer with the agricultural chemical division of Rohm & Haas Corporation.

As a practicing chemical engineer, part of my job deals with ensuring that our company's chemical processes will be able to adhere to strict EPA guidelines.

Air emissions from chemical plants are highly regulated by the EPA, and rightfully so. But for an industry that is perceived to be a large polluter by many, an examination of the

Heather Cornell for Jeremy Focht

1997 EPA statistics tells a different story.

The chemical industry contributes to seven-tenths of 1 percent of nitrogen oxides, 1.5 percent of carbon monoxide, and 2.4 percent of the volatile organic compound emissions.

However, on-the-road vehicles contribute to 29.8 percent of NOx, 57.5 percent of carbon monoxide, and 27.2 percent of VOC emissions in the United States.

The chemical industry has worked hard over the past several decades to curb our emissions, and it's time for the transportation industry to use all available technology to put forth a serious effort to decrease their emissions.

I urge the EPA to adopt the Tier 2 standards. The Tier 2 standards would allow for a consistent approach to emissions control. Instead of exempting the fastest growing portion of the automobile industry, the current emission requirements should be extended to include sport-utility vehicles and light-duty trucks.

In fact, we need to go further than the Tier 2 requirements by extending the current

emission standards immediately, not in 2004.

In addition, certain emission standards should be applied to all vehicles that travel our nation's roadways. With the diesel-powered vehicles contributing 26 percent of the xOx emissions and over 60 percent of the particulate emissions from all U.S. vehicles, any standards not addressed in this transportation class would be incomplete at best.

It seems absurd that I can spend $50 for an emissions test for my compact car only to pull away from the service station into a cloud of black diesel exhaust of a passing semi-trailer.

The Tier 2 emission standards coupled with the reduction of sulfur in gasoline would help to reduce acid rain formation, decrease the formation of smog in urban areas and help make the air safer for us all to breathe.

The adoption of the Tier 2 standards is not only a sound environmental investment but also a cost-effective way of achieving beneficial environmental results.

The extra $200 required per SUV to

bring it into emission compliance amounts to less than 1 percent of that vehicle's cost. The sport-utility vehicle market that sells thousands of vehicles for prices that would pay for two of many other vehicles, this additional cost should not be considered as a deterrent for extending emissions guidelines.

In closing, on-road vehicles contribute a large portion of the total U.S. air emissions in a number of different categories. The Tier 2 standards would be an important step in reducing on-road vehicle emission.

In addition, I urge the EPA to extend guidelines to all on-road vehicles. The Tier 2 standards lend consistency to air emissions guidelines across the industry, and I believe that the EPA should adopt the Tier 2 standards.

Thank you for your time.

MS. OGE: Thank you.

Mr. Peter -- is it Michele?

MR. MICHELE: Michele, yes.

My name is Peter Michele. I am a New Jersey resident and an advocate for a cleaner environment. And I am here today on a volunteer

basis to represent Global Environmental Energy Technology in support of the stricter Tier 2 standards.

I have listened to a lot of the stories presented here today by people who are themselves suffering from asthma or relating stories of close relatives or children with asthma. I found myself able to fully relate to their pleas for cleaner air, myself having a 31-year-old sister who has suffered immensely from asthma for over 15 years. In 1991 my sister was hospitalized 29 times for severe asthma. That's insane.

And while air pollution from vehicles is not the sole cause of this, I cannot count the number of times I've seen her condition exacerbated on ozone alert days.

Only three weeks ago she was hospitalized again for a week with severe asthma. I can't tell you how many times I've feared she might die and watch my parents worry so much about her. She is not getting any better with her condition. She really needs cleaner air to breathe.

Being frustrated with this situation for years and realizing that air pollution was a significant contributing factor, I searched for solutions to help reduce the pollution.

Realizing that money, unfortunately, makes the modern industrial world go round versus love, I knew it to be a solution that industry could both live and benefit from. It had to be a win/win arrangement between the industrialists and the people they serve.

After years of looking for such a solution, I found a humanitarian-based company who puts people before profits and who offered a solution. The company's name is GEET, Global Environmental Energy Technology, and they have the technology to reduce air pollution today, not five to ten years from now. And it is economical and well within the reach of consumers, not like some $200,000 hydrogen fuel-cell vehicle.

GEET has over 400 inventions from inventors all over the world who wanted to help the environment. Many of these technologies are far in advance of what most engineers and scientists would currently consider being

possible.

Specifically today, I would like just to mention one of these technologies, known as the GEET fuel pre-treater that was patented last August. Use of this fuel pre-treater, which consists of a specially designed reaction chamber, effectively converts both gasoline and diesel as well as crude oil and a host of other unlikely fuels to a new fuel there, GEET gas, which is rich in hydrogen and burns extremely clean.

With GEET fuel pre-treaters, emissions can be reduced by 95 percent while the engine gets double the fuel mileage. In addition, engines have been shown to have a longer life expectancy, from two to ten times the standard, due to the cleaner fuel.

Although I am not an expert in chemistry, I am able to comprehend common sense. And the dramatic results GEET has achieved have made far more sense to me than various other industry proposals I have heard and reviewed thus far.

A hot topic here today has been the

reduction of sulfur in fuel. I just spoke with the inventer, Paul Pantone (ph.) of Salt Lake City a few minutes ago and mentioned this. I asked him: What about sulfur?

He said: They have not yet performed tests for sulfur emissions as of yet. But he related to me they ran a stand-alone 10 horsepower-engine in a closed room for eight and a half hours using sulfur-rich crude oil as fuel. Testing the emissions showed zero carbon monoxide, zero carbon and zero hydrocarbons.

Also prior to the run, the air in the room showed an oxygen content of 21 percent. After the run the oxygen in the room was 23 percent.

Think of what this would mean in Mexico City or Los Angeles: Clean the air as you drive.

GEET has demonstrated a 1985 Suburban with the GEET retrofit. It was factory equipped with four-wheel drive without overdrive with a normal fuel rating of 8 miles per gallon. They currently get between 20 and 32 miles per gallon using mixtures of half gas, half water.

The standard hydrocarbons for this vehicle are 120 to 240 parts per million; they are getting 5 to 10 parts per million.

They've ruined diesel and gas engines on junk fuels including coffee, soda pop, battery acid, used oil, used transmission fluid, and a host of other unlikely fuels in front of audiences.

There are employees from GM, Ford and Chrysler who purchased plans on how to build a GEET retrofit and put them on their own personal vehicles but they say they haven't fared well in presenting this technology to their companies mostly viewed to an inordinate level of scepticism.

People who have built these units themselves have even gotten a 90 percent reduction in emissions using used motor oil as fuel.

With such technology available today, what are we waiting for in the country? GEET is currently negotiating licensing agreements with car and bus manufacturers in China, Korea and Japan who use GEET devices on an OEM basis.

Peter Michele - GEET

I would like to commend several of the auto manufacturers here today. Some of your efforts seem genuinely sincere while perhaps others are offering empty excuses for deadline extensions and for putting limits on the Tier 2 standards.

Let me just close by saying that I have not and will not receive a dime from GEET or anyone else for being here today and that I have been working for GEET on a volunteer basis for several months. Global Environmental Energy Technology has committed themselves to helping heal the environment.

It is donating a minimum of up 25 percent of all company profits back to the community that purchase GEET technology. This money will be used to continue helping the environment and the people of those areas.

On behalf of GEET, myself and my sister, I thank you so much. I deeply appreciate your consideration. Your Tier 2 standards are exactly what the doctor ordered.

MS. OGE: Thank you. I would like to thank all of you for taking the time to come

forward and give us your views about the Tier 2 program. Thank you very much.

And I would ask -- I would like to ask the next panel to please come forward. Dr. Peter Joseph, Ms. Kitty Campbell, Ms. Mindy Maslin, Mr. David Cohen, Eric Waters, and Mr. Denis Winter.

Please print your name on the piece of paper. John is going to give you a piece of paper.

We will start with Dr. Joseph -- oh, I'm sorry, let's see.

MR. JOSEPH: Good afternoon. Let me introduce myself.

MS. OGE: Peter -- Dr. Peter Joseph.

MR. JOSEPH: Dr. Peter Joseph, yes. I am a Ph.D., not an M.D.

I am a professor in the School of Medicine at the University of Pennsylvania here in Philadelphia. I am also a member of the Philadelphia Asthma Task Force, which is a special asthma group of experts appointed by the City of Philadelphia Department of Health.

My talk today is called the Air

Pollution Crisis in Philadelphia. And I suspect that some of the things I say will be in disagreement with some of the other opinions that you have heard today. However I want to emphasize that there is no one in this room that is more passionately devoted to clean air than I am.

My talk takes just five minutes to read, and it is a series of questions and answers.

"Question 1: Do we have an air pollution crisis in Philadelphia?

"ANSWER: Something is seriously wrong with the air we breath in the Philadelphia region. Over the last six years, asthma rates have skyrocketed far beyond anything that has ever been seen in the history of the world. Whereas the national average for asthma prevalence is about 6 percent, recent studies in Philadelphia school children are showing rates of 25 to 35 percent. That was not true in 1993 when a study by Harvard doctors found only 7 percent."

And I have a graph here for those of you interested to illustrate that.

"A similar situation exists in a few other places, most notably New York City. A New York City Health Department survey in 1998 found 23 percent of the children had asthma as diagnosed by the physicians.

A study recently reported in the "New York Times" showed that homeless children in New York had an asthma rate of 38 percent --" sounds like there is a missing decimal point there, doesn't it? "-- 38 percent, far higher than anything that has ever been seen at any time in the history of the human race."

Wow.

"QUESTION: Isn't asthma increasing everywhere?

"ANSWER: Yes. But not nearly as much. For example, in New York State as opposed to City, New York State had a survey in 1997 show, quote, only, unquote, 7 percent prevalence, far less than New York City or Philadelphia.

"QUESTION 3: Isn't the EPA doing everything possible to reduce air pollution in Philadelphia?

"ANSWER: The problem is that

according to all conventional measures, the air in Philadelphia and New York City is now cleaner than it has been in many years. This includes ozone, includes sulfur and particulate pollution that are being discussed in this forum. The most obvious conclusion is that there is some unusual new pollutant that the EPA has overlooked."

And that's my thesis, there is something.

"QUESTION: Is there something unusual about Philadelphia and New York that can explain these disastrous results?

"ANSWER: Yes. Both regions have been required by the EPA to have high levels of the chemical MTBE in their gasoline since 1992, which I remind you is exactly when the skyrocket began.

"QUESTION: Is there any reason to think that MTBE in gasoline is causing this epidemic?

"ANSWER: Yes. An epidemic of various respiratory and/or neurologic problems when MTBE was required in Alaska in 1992 and the state government defied the EPA and banned the

substance. Since then, literally thousands of people have been complaining that the gasoline or exhaust fumes are making them sick. Unfortunately, the EPA ignored these complaints and steadfastly required that we continue to use MTBE in our gasoline.

"QUESTION: Isn't MTBE making gasoline burn cleaner and reduce air pollution?

"ANSWER: Not according to two separate studies released by the National Academy of Sciences. Their 1996 report said MTBE is not really reducing carbon monoxide. And the recent 1999 report said it is not reducing ozone. In fact, both carbon monoxide and ozone are now lower than they have been in many years and cannot possibly explain the increase in asthma that has occurred here since 1992."

It makes absolutely no sense to blame this on ozone.

"QUESTION: Isn't MTBE reducing air toxins such as benzene?

"ANSWER: That depends on how you define, 'toxins.' MTBE definitely increases --" underline increases "-- the emission of

formaldehyde, formic acid and methanol, all of them toxic to the respiratory or neurological systems.

"More important, the EPA has not done a complete job of analyzing the toxic chemicals produced. They have studied emissions of hydrocarbons and oxides of nitrogen, but not of compounds formed from both nitrogen and hydrocarbon.

"I believe that MTBE is producing methyl nitrite, a chemical that is literally 100 times more toxic than benzene."

Let me say that again: Methyl nitrite is 100 times more toxic than benzene.

"There have been no attempts to determine if methyl nitrite is being produced or how much of it is in our air."

By the way, it is made in -- definitely made in diesel exhaust. There is a paper about this, if you are interested.

"QUESTION: Is there any reason to think that methyl nitrite is a problem?

"ANSWER: Yes. Because it is destroyed by sunlight but will be present at

night or on dark cloudy days. Many people experience their worst symptoms on such days. Furthermore, most asthma attacks occur at night and not during the daytime when ozone is at its maximum.

"QUESTION: How can one learn more about this problem?

"ANSWER: Check the website... www.Oxybusters.org. Oxybusters is a grass roots citizens group of people whose health has been damaged by MTBE. Contrary to cost rumors spread by the MTBE industry, Oxybusters does not get any financial help from the ethanol industry."

Final question: "What can one do to help?

Please "support the bills in Congress by Representative Frank Pallone of New Jersey and Senator Diane Feinstein in California." They are trying "to ban the use of MTBE and other ethers in gasoline."

Thank you.

MS. OGE: Thank you very much.

Ms. Campbell.

MS. CAMPBELL: My name is Kitty

Kitty Campbell, PA PIRG

Campbell, and I am speaking both personally and as a person who works for Penn PIRG, Public Interest Research Group of Pennsylvania.

On a personal level, my nephew -- my nephew's wife, who lives in Bordentown, New Jersey has asthma, and there are many days when she just can't go outside at all.

We live in a free country, and I think the air should be free as well as the other freedoms that we enjoy. And I think that people like the EPA, we ought to applaud them for taking the initiative to try to do something about taking the responsibility for the air that everybody breathes.

Secondly, I work for PIRG. It is a nonprofit organization, that's Public Interest Research Group, here in Philadelphia. We fight very hard to clean up our environment, both the air and water, by educating our members and lobbying all over the United States.

I personally hope to be able to buy an electric, battery-operated or solar-powered car next time I get one. So I want to encourage incentives for advanced technology vehicles so

more of us can drive less polluting cars.
I am going to definitely -- I am going to talk to that person from GEET. It sounds like a great idea.
I moved to Pennsylvania from California. Now in California, the standards of emissions of smog by cars are much stricter. And it has definitely reduced the smog out there, even though it is bad because of the amount of population and building of cities in the middle of mountain valleys where the smog can't escape.
It is undeniable that planning around the freeways and having much stricter smog standards on cars has made a huge difference. Smog would be much worse without it.
I am letting the EPA know that I believe the majority of Americans will show a willingness to pay as much as necessary so we can improve our air quality with cleaner cars.
Isn't being able to breathe freely a lot more important than a few cents more a gallon or a few hundred dollars a year?
Thank you for listening.
MS. OGE: Thank you.

Mindy Maslin

Ms. Maslin.

MS. MASLIN: Good afternoon. My name is Mindy Maslin. I am speaking as a private citizen.

EPA's Tier 2 proposal has wonderful potential for improving our air quality. Air pollution is a critical environmental and public health issue as need for regulations grow as miles are put on our cars and the number of cars on the road increases.

Automobiles are the number one non-industrial smog producers and our future depends on implementing strong regulations that limits their damage.

I am a professional tree-hugger who works for the Pennsylvania Horticultural Society teaching community groups to keep city trees alive.

Trees help lower air pollution, reduce urban heat islands, reduce runoff and subsequent water pollution and much more.

However, the effects of the excessive air pollution on them is devastating. Ground-level ozone is one of the stresses that

leads to the death of many of our Urban trees. One statistic is that Philadelphia's Urban trees on the average live less than ten years.

If this trend does not stop, Philadelphia could become a city that few would choose to live in increasing other environmental issues.

My interest is also personal. I developed asthma as an adult and blame Philadelphia's poor air quality for it. I cannot leave my home without carrying a bronchodilator and am often forced to limit my activities on bad air quality days like commuting to work via bicycle.

There are three areas of the proposal that need strengthening in order for it to have the teeth necessary for the results that we want: One, there should be no special treatment for minivans and SUVs. They are high on the list of pollution producers and should be expected to meet standards on time. These vehicles, the dirtiest of all vehicles, should not receive any exceptions to meeting the standards on time as well.

The standards must include incentives for the development of clean alternatives, such as battery-powered -- excuse me, battery-electric or fuel-cell-powered cars. Until the paradigm shifts in mass transit and rail and other clean alternatives are used, these clean cars are the only long-term solution.

The Tier 2 proposal has great potential. With the above-mentioned concerns met, we will all breathe a little easier.

Thank you.

MS. OGE: Thank you very much. Mr. Cohen.

MR. COHEN: Good afternoon. My name is David Cohen. Thank you for allowing me to testify before you today.

I am a member of the Clean Air Council and a certified room planner who is in favor of tightening standards on vehicle and emission controls.

Tier 2 standards need to be tightened and I feel should have the same emission controls as the Tier 1 vehicles. The proposed rule is clearly a step in the right direction. However

it has two key deficiencies: First, the ten-year phase-in for sport-utility vehicles and light trucks is excessively long. While I recognize the manufacturers of these vehicles need time to achieve design and engineering changes, the timetable is excessively long and should be shortened.

Second, heavy-duty trucks should also be required to clean up their emissions. The emergence of vehicles such as the Ford Excursion will be exempt from the proposed rule change. Currently the Ford Excursion and similar vehicles will be largely used for non-farm and non-industrial activities and will be marketed for suburban transportation. Thus there should not be a new loophole that enables a more excessive vehicle such as the Excursion to skirt the rules.

The proliferation and increased sales and increased market share of the sport-utility vehicle and light trucks coupled with the increase of these vehicles for non-farm and non-industrial activities have had a significant impact on the environment.

David Cohen

With increased vehicle miles traveled during this decade, the use of sport-utility vehicle and light trucks as suburban transportation vehicles has not only resulted in increased harmful emissions but have also helped to contribute to suburban sprawl, loss of farm land and an excessive use of raw material and fossil fuels necessary to build and operate sport-utility vehicles and light trucks.

Finally, a response to concerns about the cost of implementing the proposed rule: It is nominal for the benefit. The estimated cost of 100 to $200 per vehicle represents a negligible cost. The estimated cost of 2 cents per gallon per gasoline is also negligible.

Even if the cost increases gasoline higher, say 5 cents per gallon, it still represents a negligible cost increase. For those individuals that complain about the increase and the cost of gasoline due to the implementation of the proposed rule, there are two important notes: First, consumer acceptance of the cost of gasoline is elastic.

The cost of gasoline fluctuates up

Denis Winters, League of Women Voters
and down for a variety of reasons. Consumers may complain when there is an increase due to regulatory change or new tax, but the encourage to use gasoline is not impacted in any significant way by increasing the price.

Second, the cost of gasoline is severely underpriced in terms of the negative impact driving has on our environment and the costs associated with road building and road maintenance.

While an increase associated with the proposed rule would merely cover the cost of this deficiency in gasoline pricing, it will at least be a step in the right direction.

Thank you for allowing me to testify before you today.

MS. MARTIN: Thank you for coming. And I want to especially thank Mr. Winters for being here for the League Women Voters from Delaware. Please go forward.

MR. WINTERS: Thank you my name is Dennis Winters. I am a resident, and I live and work in Center City of Philadelphia. I am here today to read into the record a statement that is

00556

Denis Winters, League of Women Voters cosigned by Anita Puglisi, president of the League of Women Voters of Delaware and Pat -- Patricia Todd, president of the League of Women Voters of New Castle County, Delaware.

The League of Women Voters of Delaware appreciates the opportunity to comment on EPA's new proposal, Air Docket 6102, for uniform tailpipe standards and reduction of sulfur levels in gasoline.

The League's environmental position is to preserve the physical, chemical and biological integrity of the ecosystem with maximum protection of public health and the environment.

Two of Delaware's three counties, New Castle and Kent Counties, are part of the Philadelphia/Wilmington metropolitan ozone non-attainment area.

One of the main reasons that Delaware is in this non-attainment area is the air pollution generated by traffic on Interstate 95, much of which is through-traffic.

Applying the uniform tailpipe standard to cars plus sport-utility vehicles,

Denis Winters, League of Women Voters minivans and light-duty trucks is certainly a step toward cleaner, healthier air for the people of our state.

Requiring cleaner cars, SUVs, vans and trucks will cut down on the nitrogen oxide particulate matter and carbon dioxide as well.

The League supports the EPA's proposals that will make cars 77 percent cleaner and the other vehicles 95 percent cleaner than today's models. Also a phase-in period of 2004 to 2009 does seem reasonable to us.

The League also feels that asking oil companies to reduce the sulfur content levels in gasoline from 300 parts per million to 30 parts per million will improve the health of individuals susceptible to respiratory problems, especially the elderly and children.

The League recommends a suggested new standard of 30 parts per million which will result in less-corrosive damage to catalystic converters.

Thank you.

MS. MARTIN: Thank you.

Mr. Waters.

Eric Waters

MR. WATERS: Good afternoon. My name is Eric Waters. And I am here just to speak as a citizen of Philadelphia. That's all I am. I am not a scientist; I don't know a lot of the details of what these cars produce.

But just from my experience, I would just like to share that I don't particularly like breathing the air in Philadelphia.

I am a bicycle rider, and I ride my bike all around the town. And I really don't want to do it. I would really rather -- I don't enjoy it at all, because, you know, it's pretty -- it's pretty disgusting to ride on the streets.

And with that, I just want to say that I do hope that we can take the proper measures to try to improve our air quality.

I would like to tell a story, which is one of the main reasons I came here today, which is a story my mother told me really recently. It is about something that happened in the recent past, maybe a couple of years ago, in England, in Oxford.

There was a cathedral; it was about a couple hundred years old and -- in Oxford. And

they found that the rafters were starting and the beams were starting to rot. And these beams were made of these -- of wood from trees that were like 2 feet by 2 feet, these amazingly huge -- huge -- you know, the trunks of trees.

And when they had to be replaced, the people said to themselves: How are we going to ever find these trees that have these amazing trunks like this to replace the rafters in our awesome cathedral?

And so it was a problem. And they didn't know what they were going to do until they, I don't know when, maybe a couple of days or whatever, they were walking outside, realized across the street from the cathedral was a huge grove of pine trees; perfect size, tall and with the width.

And they went back and they found out that the people, when they originally built the cathedral 200 years ago, had the foresight to know that 200 years later they were going to need new rafters. So they planted -- planted a new grove of pine trees that could be used to rebuild the rafters.

And it is just that tradition of foresight, I think, that we need to draw on and really consider when we think about our environment and the air we breathe.

Because we can list, you know, facts about asthma and the things that are happening right now and the problems that are facing us right now. We just need to think and plan for the future. And that is the mind set that we should have. We need to take these measures to take care of ourselves and our prosperity.

So I thank you for listening.

MS. MARTIN: We thank you all very much for taking the time to come here and join us this afternoon.

And, unfortunately, I have to admit, Eric, that we at EPA probably didn't have as much foresight as those people who built the church.

And I wanted to explain why some of the people here on the panel, from the government panel, had to leave. And that is because we have Another public hearing tomorrow morning in Atlanta. And, unfortunately, this afternoon we found out that a lot of our flight reservations

were kind of shifted around and planes were fuller than they told us when we came down here to Philadelphia.

So please know that the people that were here feel very bad about having to leave while there were still other people to testify.

Some of us may also have to leave while we -- while others of you are testifying. But we will have copies of the record, thanks to our stenographer friend here, and we will certainly pay attention to anything that you add in written form to the record.

And someone from EPA will continue to stay here until midnight as long as people are willing to talk about it.

But thank you all very much.

As far as I know, we actually have just one more panel. And I would like to call up the three people that we have notification of that are interested in still testifying this afternoon. That is, Mr. David Gibson, Scott Althouse from the Evangelical Environmental Network and Josh Mitteldorf. If you would please proceed to the table and sign a name card with

Joshua Mitteldorf, Clean Air Council
the name and the organization you are with.
Thanks very much.
Actually, if there is anyone else here in the audience that hasn't had a chance to either sign up or would still like to speak, please feel free to proceed to the table as well. Two more chairs. Anyone?
Thank you very much.
Would the gentleman whose name I did not call please identify yourself?
MR. LANGON: John Langon.
MS. MARTIN: Okay. And if you would -- we will, start with the person who was the quickest in getting his name card up, Mr. Mitteldorf from the University of Pennsylvania. Please begin.
MR. MITTELDORF: My name is Joshua Mitteldorf. I am a board officer of the Clean Air Council, and I have a small family foundation that is enthusiastic about environmental causes. I am on the biology faculty of the University of Pennsylvania, but my Ph.D. is in computational astrophysics. And for 20 years I have been a teacher and community advocate for personal

Joshua Mitteldorf, Clean Air Council

health and fitness. I should add, too, that I am a parent of two school-aged daughters and a bicycle commuter.

I came here today with the intention of voicing support for EPA's Tier 2 standards for auto emissions. I came to support them, I intended to support them, but I cannot support them.

These standards are far too little, too late. They are already so diluted by corporate lobbying that they will not result in compliance in EPA's ambient ozone standards any time soon, standards in which themselves are probably inadequate to protect our health.

The standards and the regulations have become dangerously polluted, and the process itself is as dirty as the air we are forced to breathe.

I know that I live in a severe non-attainment area where EPA has called our air dangerously unhealthy. I know that almost half of our nation lives in places where the air does not meet the EPA's standards, and I know there is substantial research indicating that these

Joshua Mitteldorf, Clean Air Council

standards are not conservative enough, especially for our children, our elders, and those of us with compromised lung conditions.

Nonsmokers living in smoggy areas are four times more likely to develop lung cancer than others in unpolluted areas.

Even at levels tolerated by the latest EPA standards, ozone is associated with impaired lung function, increased incidence of asthma and bronchial infections, hardening of the lung tissue. Chronic exposure leads to permanent lung damage.

I have the resources and the background to know these things, but what if I had not known these things? Would the EPA then deem it less important to promulgate the standards needed to protect my lungs? What if I was too busy to come to this meeting, or not well enough informed to have heard about it, or not well enough educated to understand the connection between my own health and federal politics? What if these meetings were packed with people on the payroll of General Motors or Sun Oil who were instructed to take the day off from work to

demonstrate public opposition from Tier 2? How then would the EPA perceive its responsibilities if the public seemed apathetic or numbed or busy or confused? Would the EPA then say, well, the science indicates that these standards were a good idea, but there just isn't enough public support to warrant the change?

There is something fundamentally wrong with this process that is supposed to be based on science and health but where the ghost of politics is the uninvited guest at every policy forum. Can this administration make decisions about good science, or are they prisoners of politics?

And is politics, in turn, a prisoner of financial interests so that public health, with no interest group, no PAC funds cannot compete for support?

For me, the bottom line in this air quality issue is protection of our health. We as a nation spend over $1.2 trillion on medical care every year, one-sixth of our GDP.

This amount is increasing four times faster than the GDP itself. The economists in

and out of government are wringing their hands asking how can this explosion of medical costs be contained?

And yet we know that a dollar spent on prevention now can save many dollars in health care costs later. It's estimated that current levels of ambient air pollution comprising ozone particulates and sulfur dioxide result in 40,000 annual deaths nationwide.

The Tier 2 standards for SUVs come with a price tag of about $100 million annually, and the benefit is expected to be a 12 percent reduction in total pollutants. A little division yields a cost per saved life of $20,000.

Now, if a cancer patient was admitted to the hospital, would we deny him lifesaving therapy because it cost him $20,000? I think even at ten times that cost that the miracles of modern medicine are embraced as a bargain. If $200,000 for a life saved is no obstacle in the operating room, why would we set the bar so much lower when it comes to environmental protection?

Just on the basis of saved lives alone, these Tier 2 measures should be rushed

Joshua Mitteldorf, Clean Air Council
through on an emergency basis while further measures cutting more deeply into pollution at somewhat higher costs are embraced as well.

Remember that saved lives are only the most dramatic benefit from pollution abatement; reduction in infections, improved productivity, prevention of damage to crops and other major benefits. And then there is the health and well-being of the 14 million Americans with asthma.

There's a great disproportion here. There should be nothing controversial about the measures embraced in Tier 2. We should be here debating a greatly enhanced commensurate with the magnitude of the potential health benefits.

Next year I hope to return to these hearings to testify in favor of larger investments and vastly greater imposed costs in the name of health and of our right to breathe clean air.

Thank you.

I also have here the testimony of Dr. Howard Winant, which he asked me to read for him.

Is this the right time to do that?

Joshua Mittledorf for Howard Winant

MR. SIMON: Yeah. We are asking people to be limited to ten minutes, but go ahead, put it in.

MR. MITTELDORF: Thank you for the opportunity to make my views known on the subject of our air quality.

This is the testimony of Howard Winant.

I am a professor of sociology at Temple University and a resident of Philadelphia. As a social scientist, not a natural scientist or medical specialist, I cannot speak on the quality of our air. But as a citizen that suffers from asthma and tries to stay healthy through aerobic exercise, I can, indeed, speak. As the parent of three children, kids who try to excel athletically and play outdoors at home or at school, I can speak as well.

Our Philadelphia air is not good. It continues to flunk the national standards for clean air. Although I don't have instruments to measure the amount of contamination we're breathing, I do have my own lungs, which measure

Joshua Mittledorf for Howard Winant

very well the pollution, the particulate matter, the ozone that I encounter on my regular three-day -- 3-mile run in Fairmount Park.

I keep myself in good shape. I am a good control on the experiment, but gradually I can feel the added difficulty in breathing that pollution is causing.

What might the sources of this added pollution be? Of course there are many, but I hope the EPA is doing the kind of work they should be to identify all them. But one source that I want to highlight today is SUVs, sport-utility vehicles.

The exploding sales of SUVs has been a regular item in the news for several years now. These vehicles are popular because they are bigger and safer for their occupants, if not those unlucky enough to collide with them.

They are seen as hip and cool and sporty even for those who may never drive them off the paved road. Their emissions are less regulated than ordinary passenger cars. They are still absurdly considered to be trucks. This is absurd because they have been converted from the

Joshua Mittledorf for Howard Winant

truck frames they were originally designed to rest on to become the passenger vehicles that they are now.

If you look at the SUVs on the Expressway or lined up in the drop-off areas at schools or outside the supermarket, will you see quickly enough that they are no longer trucks, they are big station wagons, big cars. Everybody knows this.

And there is so many of them now. I ask the EPA to consider, what is the reason for the exemption from the emissions that these big cars were given? Is there any sound explanation why citizens like me and my kids have to wheeze more and cough more so that executives driving their SUVs downtown to work in high-rises can save a few bucks on their luxurious cars.

Is there some deal, not very secret but not very public either, that allows the manufacturers of these vehicles to avoid pollution laws and controls on these vehicles?

SUVs aren't cheap, but I am sure the auto-makers don't want to raise their prices for these popular models, so they resist making the

Scott Althouse, Evangelical Environmental Network improvements that adequate pollution regulations would require.

It was ever thus, but as we have seen in the past, when the car manufacturers finally heard the complaints being raised by citizens concerned about air quality, they showed that they could make the necessary improvements, that they could install pollution-lowering technology. They can do that again for the SUVs, but only if the EPA requires it.

In the past when the public protested about needless environmental damage and risk, the EPA and Congress finally woke up and listened and required the manufacturers to do what is right. It is time for that to happen again.

Thank you.

MR. SIMON: Thank you, Mr. Mitteldorf.

Mr. Althouse.

MR. ALTHOUSE: Good afternoon, Members of the Panel, EPA officials, representatives of the automobile and oil industries, representative of the environmental community of the fine people of Philadelphia.

Scott Althouse, Evangelical Environmental Network
Good afternoon.

Today I am appearing before you on behalf of the public policy team of the Evangelical Environmental Network. The EEN is a fellowship of some 7,000 Christen believers who are committed to building our Lord's kingdom by active services to restore and renew the works of His hands.

Our network partners with 19 Christen organizations, including Habitat for Humanity, World Vision, Target Earth, and the American Scientific Affiliation, to name a few.

Our network also comprises the evangelical component of what is know as the National Religious Partnership for the environment.

Now, more than ever, the public is concerned about environmental issues. And Christians who obey God's mandate to care for creation are making a statement about their faith. Jesus loves the earth and so do His people.

Every summer one of the forefront environmental issues is about air pollution, and

Scott Althouse, Evangelical Environmental Network this summer is no exception. In light of the recent federal court decision which repealed the much-needed air quality standards, I applaud the EPA for issuing this latest series of proposed rules to improve the quality of life for countless Americans.

During last year's smog season, the EPA reported 5200 violations of health standards across the nation. It is reported that each year 40,000 people die prematurely due to poor air quality, and 117 million Americans live in cities where the air is often unsafe to breathe, as in Philadelphia.

Our culture's insatiable appetite for energy consumption and our sinful disregard for creation is not only harming the earth but is also killing the people and animals who inhabit it. This is serious business.

The EEN thanks the EPA for this excellent opportunity for concerned believers to voice an unapologetically Christian perspective on the righteous stewardship of God's creation.

We pray that Christ's love for the earth and for His affected people will be evident

Scott Althouse, Evangelical Environmental Network in this public forum.

It is well documented that air pollution poses unacceptable health risks to the most susceptible members of our society: the sick, the elderly, and, of course, our children.

One of our members, Dr. Phillip Landrigan, director of Mt. Sinai School of Medicine Center for Children's Health and the Environment New York, he tells us that asthma rates have more than doubled among American children in the past decade alone. Approximately 600 children die every year from asthma and 150,000 are hospitalized.

In fact, Dr. Landrigan suggests that asthma is the leading cause of the admission of Children into hospitals. Dr. Language also knows clearly there are genetic components but also suggests that this inheritance factor is only one part of the explanation of increased rates of asthma. Both indoor and outdoor air pollution appear to be contributing to the upsurge in asthma rates.

It is true that gross black pollution has declined in the past two decades as a result

Scott Althouse, Evangelical Environmental Network of EPA's air quality standards, but levels of ozone, oxides of nitrogen, and sulfur and fine particulates are on the increase. These pollutants come mostly from automotive emissions, and levels have been rising as Americans drive more and more miles every year.

While our organization supports the efforts of EPA to institute stricter regulations on auto emissions to help improve air quality, I support the first initiative to close the SUV loophole.

Current emission standards for light trucks, sport-utility vehicles and minivans allow two to three times more exhaust pollution than passenger cars. This is unacceptable. I support EPA's proposal that new SUV's meet the same clean air standards as new cars.

Secondly, I support EPA's proposal to mandate the use of low-sulfur gasoline in all 50 states.

Participants in this public hearing may have heard or read about the auto or oil industries complaining about the cost of environmental regulations; however, our analysts

including professionals, suggest that all of these proposed changes will be relatively inexpensive for the auto industry.

Pollution control technology already exists to enable SUVs to comply with EPA's new proposals. We have heard estimated costs as low as just $200 per truck. Additionally, California has been successful at using the low-sulfur gasoline at a minimal cost of just 2 to 3 cents per gallon.

The new EPA regulations are industry and consumer conscious. The manufacturers have no excuse but to comply and protect the beautiful earth God has given us.

Members of the panel and others in attendance, thank you for this opportunity to appear before you in the Creator's service.

Thank you.

MR. SIMON: Thank you, Mr. Althouse.

Mr. Gibson.

MR. GIBSON: Good afternoon. My name is David Gibson. I wish to thank the EPA for holding these hearings and allowing me time to speak today. I have come to represent no

organization or agency other than myself. I do come with 20 years of research and organizing experience in environmental community and labor organizing.

There has been a lot of attention paid to the local and near-term environmental health benefits of the EPA's proposed standards for Tier 2. I'm heartened to see that.

In essence, we can all at least -- including or friends from the industry who had to leave today, at least we can all publicly announce our agreement on the eventual goals of reductions of auto tailpipe emissions and the ensuing transition to more environmentally-friendly technologies, particularly EV vehicles.

I would like to state for the record, I support at a minimum the EPA's proposed new standards as well as my further support for the improvements advocated by the Public Interest Research Group, the Physicians for Social Responsibility, Sierra Club, Clean Air Council, the American Lung Association and many others who have spoken for the proposal for the past two days.

Any discussion of proposed new standards will be incomplete, however, unless there is more specific discussion of the need and the impacts they have regarding the issue we all call global warning. This is an issue that I would like to addresses.

Regardless of the oft stated perception that the debate climate change is somehow still not conclusive, the overwhelming preponderance of evidence more than suggests the details involved is really in question.

Mounting information continues to accumulate. As recently as two days ago, June 8th, 1999, according to the Associated Press, a team of U.S., Russian and French scientists have extracted a 2-mile-long ice core from the Antarctic Ice Sheet which shows levels of greenhouse gases are higher now than at any time in the past 120,000 years. This is reported to be the longest record of the earth's weather history to date.

It further demonstrates that gases such as methane, and more relevant to today's debate, carbon dioxide are more important than

previously thought in warming the planet when ice ages end.

A study released in London on June 4th, just five days earlier, by scientists from Columbia University reports research concluding that winters in Europe, Asia and North America have been warmer and wetter in the past 35 years due to the increased amounts of greenhouse gases.

The study used model simulations of weather patterns from NASA's Goddard Institute to test their theory. The study goes on to say, according to the writers, that the effects have shifted wind patterns, strengthening west-east winds carrying warm air from oceans to the continents and colder continental air to the oceans.

Now, our auto-makers -- our autos and our smokestacks have been emitting these gases for decades. The resulting atmospheric concentrations of CO2, the relevant greenhouse gas here today, are 50 percent higher than before the industrial revolution.

The Intergovernmental Panel on

Climate Change, or the IPCC, made up of over 2,000 scientists and other experts commissioned in 1988 by the UN, have concluded that merely to stabilize concentrations at current levels, global emission would have to be cut by 50 to 70 percent.

Carbon emissions have been growing by about 1 percent per year. This will put twice as much carbon in the atmosphere by 2100 as during pre-industrial era. The IPCC report Climate Change 1995 predicts an average global surface temperature rise of 3.6 degrees Fahrenheit by 2100 if CO2 and other gases are not curbed.

In the words of the report: "There will be some beneficial effects...there will be many adverse effects, with some being potentially irreversible."

The insurance industry has been alarmed at the warming and repeated reality of increases of hurricanes and tornadoes as well as extreme weather events and the ongoing beach erosion that has been occurring. Hurricane Andrew, just to take one example, costs the industry something like $17 billion.

Climate change as a result of actions taken years ago and actions we take today will have impacts that will be felt by our children and our grandchildren.

Climate change is a runaway train. And like a train, we need to begin to apply the brakes now to ease to a stop for future generations.

And obviously, we will have to reduce emissions from other sources than just automobiles. It is commonly assumed that automobiles do produce about 20 percent of all U.S. carbon emissions.

U.S. Department of Energy projects a 40 percent growth in greenhouse gases through 2015 will be caused not only by cars but other transportation vehicles, but predominantly by cars. It is about 30 percent less produced by cars now anyway.

Clearly the internal combustion engine has become more than a mixed blessing. It has nearly outlived its usefulness. When its benefits are being outweighed by its eventual impacts, it becomes a liability. If we assume

that the average car meets the federally mandated 27.5 miles to the gallon -- I don't think my car does -- but if we assume that, and say it travels 100,000 miles in its lifetime, we will end up emitting on average 35 tons of CO2.

So the world's 500 million cars create 20 to 25 percent of today's greenhouse gases. But car ownership is on the rise worldwide? And if we don't do our part, what does that hold for the future of our children's planet.

The UN Population Fund has estimated that developing companies will be emitting four times as much CO2 as industrialized countries do. In the words of Mark Hertsgaard in his very important book Earth Odyssey, that is why "Taming the car is essential to defusing the greenhouse crisis."

Now, the oil and auto industry, I wish they were here, they will tell you two things: They will say that U.S. autos and U.S. air is cleaner today since new improvements have been implemented, and that we cannot be responsible for consumption patterns in

developing nations.

Well, first, it may be true that cars and air are cleaner today, but what the auto industry won't tell you is that improvements were made only after government action in the early 1970s forced compliance with new standards.

The auto barons aren't fond of reminding the buying public of how hard they fought to stop or curtail existing improvements, much as they seem to be stonewalling here at these hearings.

Second, while it is true that the Tier 2 standards would have no direct effect on autos sold in other countries, the contingent advance in technology required by these standards certainly opens up the availability of new potential market opportunities that would only encourage and eventually compel new markets to adjust behavior.

Besides, if you can't count on developing nations to bring down their share of greenhouse gases in the near term, isn't it logical that the industrialized nations had better double their efforts if we are to decrease

the awful potential of extreme climate change and its intended negative impacts from everything from health and agriculture to extreme weather events and a bankrupt insurance industry?

The noble-sounding and self-serving platitudes by auto and oil executives extolling our common goals and proud partnerships in ensuring clean environments are nothing more than spin control when they accept no legal obligations or impositions mandated by federal law.

That is why I come here today to urge strong support for the Tier 2 standards and the proposed improvements by the environmental health organizations that have been here for the past two days. I sincerely hope that this is just the beginning.

It is particularly important to see these standards as transitional and for the oil and auto industries to speed up the process of adaptation manifest in the proposals for increased production of alternative technology vehicles and cleaner burning or low-to-zero sulfur fuels.

And this is critical if the automotive industry, if not the human species, do not want to go the way of the dinosaurs.

I want to thank once again the EPA for holding these hearings and allowing time for this important discussion. And it is only, you know, with an informed and active public debate on this that the efforts on democratic decision-making of a narrow, financial, self-interested view can be checked.

Thank you.

MR. SIMON: Thank you, Mr. Gibson.

Ms. Curry.

MS. CURRY: Hi. I am speaking today -- and I am not quite sure what faces I am speaking to.

But I am here as -- I am a person of one of the people of this nation and one of the people of this generation. And to me, the proper functions of the government, at least two of them, are securing the safety and health of the people. And the most basic things to human life are food, water and air. And these hearings are about air, air quality.

And I request the strongest standards that prevents every possible harmful or toxic particle from entering my life space, yours, and that reduce the purity of air for future generations.

I request that you close the loophole for the SUVs; that whatever can be done to clean up the diesel vehicles -- whenever I drive behind a bus, I hold my breath, if I am caught behind one at a stop sign. And I always put my air vents on recirculate so I am never taking in exhaust fuels from the cars ahead of me at stop signs.

So I request the strongest standards that you prevent every possible harmful or toxic particle from entering my life space, your life space, and the future generations?

Thank you.

MR. SIMON: Thank you.

Mr. Langon.

MR. LANGON: Good afternoon. My name is John Langon. I work with the Fund for Public Interest Research, but today I am here speaking on my own behalf.

John Langon

First, I want to thank the EPA for selecting Philadelphia as one of the public hearing cities. Our city is under siege from air pollution, so I think it is quite appropriate to be here.

I also want to address the recent ruling by a court of appeals in the District of Columbia, which evaluated the EPA's ability to make decisions regarding clean air standards. The court rules that only Congress itself has the power to make such decisions. This is a ridiculous ruling.

Congress hasn't the time nor expense to make every decision regarding the affairs of our country. And as a citizen, I fully support Congress', my Congress' ability to delegate decision-making powers to the EPA. And, indeed, the EPA has done the necessary research to make such an important decision with its Tier 2 proposal.

The EPA has, in fact, made a strong proposal for Tier 2, most brilliantly requiring a change in both the gas and the automobile.

Both industries have reaped profit

from polluting, and so now they must share the responsibility of cleaning our air. The proposal should, however, be strengthened by requiring the heaviest of SUVs to come into compliance with other SUVs by the year 2004.

Exemptions for diesel engines should be ended as well. Incentives for alternative vehicles should be increased, and sulfur content and gasoline should be reduced from its current standards down to 30 parts per million in conjunction with changes in the automobile pollution technology.

But what I really want to talk about today is courage. I'm appealing to the EPA, and you, members of the current EPA panel -- unfortunately, most of the original panel has left prematurely.

But I want to appeal to you and the entire EPA to be courageous and finalize the strongest Tier 2 policy possible. Resist the auto and oil industry's influence; reject them as they beg for more time.

As they feign helplessness in this situation, simultaneously they will spend

outrageous amounts of money to undermine the EPA's proposal. As they beg for a delay now, they will surely beg for a delay in the future.

And if begging doesn't work, then they will tie up the courts with lawsuits and try to buy off Congress with campaign contributions to pass a law that would ban EPA's ruling.

These have been their tactics every time clean air standards have been proposed. And industry can certainly make the required changes in the time frame outlined by the EPA.

Both industries pride themselves on innovations. Every car commercial I see touts new technology. The auto industry has put advanced braking systems, air bags and manufacture control systems into production.

With all of this innovation, even if their self-confidence is now slipping, I have full confidence that industry can meet the EPA's Tier 2 proposal.

Similarly the oil industry's commercials brag that they have the newest technology to search for and extract oil from any part of the world. And certainly in this age of

information, technology and speed, EPA should realize that industry can comply with the original Tier 2 proposal time frame.

The bottom line, we need cleaner air. The medical and scientific community have confirmed that.

As a resident of Philadelphia, I can attest for the need for cleaner air. Earlier this week I was watching the evening local news. Sadly, part of the weather forecast was the air pollution forecast.

This is a major wake-up call. Now instead of watching the weather forecast to see if your child will need to take an umbrella to school, we now need to watch to see if they will need their inhaler. Or maybe even worse, maybe schools closed altogether due to air pollution like it was here in Philadelphia earlier this week.

I am personally asking the EPA to be courageous against industry and implement a stronger version of its Tier 2 proposal.

So I am asking the members of the EPA panel here to do their part, do everything in

their power to implement the strongest Tier 2 policy possible.

Thank you.

MR. SIMON: Thank you. And even though there are only two of us, you can rest assured your message will be heard.

Mr. Heckelman.

MR. HECKELMAN: Good afternoon. I support all of the testimony I've heard so far. And you will be pleased to know that as the last presenter in this panel, my testimony is rather short.

I am Jack Heckelman, president of the Alliance for a Sustainable Future. The Alliance strongly supports the EPA, the EPA proposal to apply uniform tailpipe standards to passenger cars, SUVs and light trucks.

It is essential to close this loophole especially since SUVs have become such popular vehicles. It is recommended that the automobile companies be urged to comply voluntarily with these standards even before they can become effective in 2004.

This will result in much cleaner air

Jack Heckelman, Alliance for a Sustainable Future and less ground-level ozone generation, particularly in noncompliance regions such as Philadelphia, and reduce health problems caused by excessive ozone.

It is also recommended that SUVs be required to make higher CAFE standards in order to reduce greenhouse gas emissions as well as ozone-causing emissions.

In the area of lower sulfur, again the Alliance strongly supports the reduction of sulfur in gasoline in order to preserve and enhance the operation of catalytic converters to reduce nitrogen oxide and other ozone-causing emissions.

In addition, the reduction of sulfur compounds will reduce their contribution to acid rain. We feel the small cost is a very good investment.

On a related issue, we consider the problem of greenhouse gas emissions to be extremely serious and life-threatening for future generations and for ecosystems. The United States should take a much stronger leadership role so we comply with Kyoto requirements, and

Jack Heckelman, Alliance for a Sustainable Future this is certainly one important step in that direction.

And finally, off the record, this is my own personal comment, I think it's insane that gasoline costs less than bottled water or milk. And we should take the initiatives in this country to raise the taxes on gasoline to the point where they're somewhat comparable to those in Europe. I think we would have far cleaner air and we would have a lot of money that could be used for environmental protection. And that seems to be the only way to go.

Thank you for your recording my views with you.

MR. SIMON: Thank you.

Questions?

MR. HOROWITZ: No questions.

MR. SIMON: I would like to thank this panel for sharing their views with us today, and I look forward to going forward in the process.

Thank you.

Are there any other members of the public out in the audience that wishes to speak

today?

I will take that as a no.

So this concludes the first Tier 2 Gasoline in Sulfur Public Hearing. We will have another public hearing in Atlanta tomorrow, Denver on Tuesday and Cleveland on Thursday.

We thank everybody who has testified over the last two days, and we appreciate their efforts. And we also thank the people in the audience who have listened over this process.

I would just like to remind people that we are taking written and oral and electronic comments. The commentary on the proposal closes on August 2nd of this year.

Thank you very much, and good day.

(Hearing concluded at 4:22 p.m.)

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CERTIFICATE

I HEREBY CERTIFY that the foregoing proceedings, of the EPA TIER 2 EMISSION STANDARDS FOR VEHICLES AND GASOLINE SULFUR STANDARDS, taken on June 10th, 1999 and that this is a true and correct transcript of same.

_____
LISA C. BRADLEY, RPR and
Notary Public

and

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